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RUSH MEDICAL COLLEGE SEVENTIETH ANNUAL ANNOUNCEMENT



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TABLE OF CONTENTS

History, Government, Affiliation, and Location	3
Calendar of Rush Medical College	5
Calendar of the University of Chicago	6
Board of Trustees of Rush Medical College	7
The Faculty of Rush Medical College	7
Fellows Appointed for 1912-13	17
Extra-mural Instructors	17
Officers of Administration	17
Administrative Board of Medical Affairs	18
Introductory Statement	19
General Regulations	21
The Curriculum	22
Requirements for Admission	23
Requirements for Graduation	27
General Information for Students Entering the Freshman and Sophomore	
Classes	28
Routine of Entrance	28
Fees for Matriculation, Tuition, Deposits, and Apparatus	29
Rooms, Board, and General Expenses	30
General Information for Students Entering the Junior and Senior Classes	31
The Quarter System	33
Definition of Major and Minor	34
Graduate Courses in Medicine for Physicians and Advanced Students	34
The Work of the Medical Course for the Freshman and Sophomore Years	35
Arrangement of Courses for Six Quarters	35
The Work of the Clinical Years	37
Fifth Year	38
Department of Anatomy	38
Department of Zoölogy	40
Department of Physiology	45
Department of Psychology	48
Department of Chemistry, Materia Medica, and Toxicology	49
Department of Therapeutics and Preventive Medicine	53
Department of Pathology and Bacteriology	54
Department of Medicine	56
Department of Surgery	62
Department of Obstetrics and Gynecology	65
Department of Laryngology and Otology	67
Department of Ophthalmology	69
Department of Skin and Venereal Diseases	71
General Lectures and Optional Courses	72
Laboratories, Equipment, and Libraries:	
The Hull Biological Laboratories	72
The Kent Chemical Laboratory	73
The Libraries	74
Buildings, Equipment, and Hospital Facilities at Rush Medical College	74
Fellowships, Hospital Internes, and Prizes	78
Occupants of Interneships	80
Fellowships and Scholarships at the University of Chicago	83
Medical Societies	86
Alumni Association	87
Graduates for the Session of 1911-12	88
Matriculates for the Session of 1911-12	90
Summary	105

RUSH MEDICAL COLLEGE

IN AFFILIATION WITH

THE UNIVERSITY OF CHICAGO

HISTORY

Rush Medical College is one of the oldest institutions of learning in the Northwest, having been chartered by a special act of the Legislature of the state of Illinois in February, 1837. It was founded by the late Daniel Brainerd, who was its first president. The first course of lectures was delivered in the second story of the frame building on Clark Street, near Randolph, in 1843. In 1844 a college building was erected at the corner of Dearborn Avenue and Indiana Street, a structure which was remodeled and enlarged in 1855. In 1867 a larger building was erected on the site of the old one. This edifice was destroyed in the great fire of 1871 and for three years the College occupied a temporary amphitheater in the grounds of the Cook County Hospital, then located at Arnold and Eighteenth Streets. In 1875 the present Clinical Building was erected, and in 1893 a Laboratory Building, which greatly increased the facilities for practical instruction, was erected on the south side of Harrison Street, opposite the Clinical Building. The facilities for clinical instruction were largely increased in 1903 by the addition of the Senn Building, seven stories in height, adjoining the Clinical Building on the east. In 1887 the College became the medical department of Lake Forest University, retaining, however, its autonomy. This relation was dissolved by mutual consent in April, 1898, and in the same month the present affiliation with the University of Chicago was established. In 1883 the Presbyterian Hospital, adjoining the College, was established, and the building then erected for the hospital was subsequently enlarged by the addition of the Daniel A. Jones Memorial. In 1908 an affiliation was entered into with the Children's Memorial Hospital similar to that obtaining with the Presbyterian Hospital. Rush Medical College is one of the several institutions officially recognized by the Royal Colleges of Physicians and of Surgeons of London, England.

GOVERNMENT

The government of the College is vested in a "perpetual Board of Trustees" distinct from the teaching force of the College, which was constituted by a special act of the General Assembly of Illinois, in February, 1837, and of which the Governor of the state, the Lieutenant-Governor, and the Speaker of the House of Representatives are members *ex officio*. This board is responsible to the state for the careful management of the financial and educational interests of the College, and for the discipline of its students.

AFFILIATION

By the terms of affiliation with the University of Chicago, the Board of Trustees is composed of members not belonging to the teaching force of the College. This board assumes the financial management and appoints the Faculty, but delegates to the latter the control of the educational work subject to the rules of the University and the approval of the Trustees. The affiliation thus assures the maintenance of a higher order of instruction and a steady advance in modern educational methods. The University offers three Fellowships to graduates of the College, yielding the University fees and entitling the holders to the privileges of its biological laboratories. It provides for granting the degree of Bachelor of Science to students of the College who have had suitable preliminary education and who comply with the University regulations established for that degree. The courses of the first two years of the medical curriculum are offered at the University only.

LOCATION

The College is situated on West Harrison Street, between Hermitage Avenue and Wood Street, and can be reached by any of the trains of the Metropolitan Elevated Railway, the Marshfield Avenue station of which is three blocks east of the College; by the Ogden Avenue and Van Buren Street electric lines, which cross Wood Street two blocks north of the College; or by the Harrison Street electric car line, which runs on West Harrison Street.

The telephone number is West 113.

Address all correspondence to RUSH MEDICAL COLLEGE, Chicago, Illinois.

LOCATION OF THE UNIVERSITY OF CHICAGO

The University is situated on the Midway Plaisance between Cottage Grove and Madison Avenues, and can be reached by the Cottage Grove Avenue electric cars (from Wabash Avenue), by the South Side Elevated Railway, by the Illinois Central Railroad to South Park station, or by the Sixty-third Street electric cars from the Englewood railway stations.

Mail and baggage service is provided at the Information Office in Cobb Lecture Hall.

The telephone number of the University is Midway 800.

CALENDAR OF RUSH MEDICAL COLLEGE

1912

June 17, Monday.—The Summer Quarter begins.
July 1, Monday.—The Fiscal Year of the College begins.
July 4, Thursday.—Independence Day: a holiday.
July 25, Thursday.—Second Term, Summer Quarter begins.
Aug. 30, 31, Friday, Saturday: Quarterly Examinations.
Aug. 31, Saturday.—Summer Quarter ends.
Sept. 1—Sept. 30.—Summer Recess.
Oct. 1, Tuesday.—Autumn Quarter begins.
Nov. 11, Monday.—Second Term, Autumn Quarter begins.
Nov. 28, Thursday.—Thanksgiving Day: a holiday.
Dec. 19, 20, 21, Thursday, Friday, Saturday: Quarterly Examinations.
Dec. 21, Saturday.—Autumn Quarter ends.
Dec. 22–31.—Quarterly Recess.

1913

Jan. 2, Thursday.—Winter Quarter begins.
Feb. 10, Monday.—Second Term, Winter Quarter begins.
Feb. 22, Saturday.—Washington's Birthday: a holiday.
March 20, 21, 22, Thursday, Friday, Saturday: Quarterly Examinations.
March 22, Saturday.—Winter Quarter ends.
March 23–30.—Quarterly Recess.
March 31, Monday.—Spring Quarter begins.
May 8, Thursday.—Second Term, Spring Quarter begins.
May 30, Friday.—Memorial Day: a holiday.
June 9, Monday.—Special Clinics for the Alumni Association.
June 10, Tuesday.—Special Clinics; Annual Business Meeting of the Alumni Association; Class-Day Exercises of the Graduating Class.
June 11, Wednesday.—3:00 P.M., Graduating Exercises; 6:00 P.M., Annual Reception and Dinner of the Faculty and Alumni.
June 12, 13, 14, Thursday, Friday, Saturday: Quarterly Examinations.
June 14, Saturday.—Spring Quarter ends.

CALENDAR OF THE UNIVERSITY OF CHICAGO

1912

June 7	Friday	Junior College Day
June 9	Sunday	Convocation Sunday
June 10	Monday	Class Day
June 11	Tuesday	Summer Convocation
June 12	Wednesday	} Quarterly Examinations
June 13	Thursday	
June 14	Friday	
June 14	Friday	Spring Quarter ends
June 17	Monday	<i>Summer Quarter begins</i>
July 4	Thursday	Independence Day: a holiday
July 24	Wednesday	Examinations for First Term of Summer Quarter
July 25	Thursday	First Term of Summer Quarter ends
July 25	Thursday	Second Term of Summer Quarter begins
Aug. 25	Sunday	Convocation Sunday
Aug. 30	Friday	Examinations for Second Term of Summer Quarter
		Autumn Convocation
		Second Term of Summer Quarter ends
Oct. 1	Tuesday	<i>Autumn Quarter begins</i>
Nov. 28	Thursday	Thanksgiving Day: a holiday
Dec. 15	Sunday	Convocation Sunday
Dec. 18	Wednesday	Winter Convocation
Dec. 19	Thursday	} Quarterly Examinations
Dec. 20	Friday	
Dec. 21	Saturday	
Dec. 21	Saturday	Autumn Quarter ends

1913

Jan. 2	Thursday	<i>Winter Quarter begins</i>
Feb. 12	Wednesday	Lincoln's Birthday: a holiday
Feb. 22	Saturday	Washington's Birthday: a holiday
Mar. 16	Sunday	Convocation Sunday
Mar. 18	Tuesday	Spring Convocation
Mar. 19	Wednesday	} Quarterly Examinations
Mar. 20	Thursday	
Mar. 21	Friday	
Mar. 21	Friday	Winter Quarter ends
Mar. 21 - Mar. 31		Quarterly Recess
Mar. 31	Monday	<i>Spring Quarter begins</i>
May 30	Friday	Memorial Day: a holiday
June 6	Friday	Junior College Day
June 8	Sunday	Convocation Sunday
June 9	Monday	Class Day
June 10	Tuesday	Summer Convocation
June 11	Wednesday	} Quarterly Examinations
June 12	Thursday	
June 13	Friday	
June 13	Friday	Spring Quarter ends

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- HERBERT WALKER, M.D., Associate in Ophthalmology, 29 East Madison Street.
- EDMUND VINCENT COWDRY, Ph.D., Associate in Anatomy, University of Chicago.
- HUGH JAMES POLKEY, M.D., Assistant in Surgery (Genito-urinary), 5108 Sheridan Road.
- GEORGE WARNER MOSHER, M.D., Assistant in Laryngology and Otology, 104 South Michigan Avenue.
- THEODORE DROSDOWITZ, M.D., Assistant in Surgery (Genito-urinary), 1656 West Twelfth Street.
- GEORGE HALPERIN, M.D., Assistant in Medicine, 1933 West Taylor Street.
- JOHN ALFRED GRAHAM, M.D., Assistant in Clinical Surgery, 32 North State Street.
- FRED CONRAD KOCH, S.M., M.D., Assistant in Physiological Chemistry, University of Chicago.
- CLARENCE L. WHEATON, M.D., Assistant in Medicine, 2738 Pine Grove Avenue.
- EDWARD WHITNEY BODMAN, M.D., Assistant in Medicine (Nervous and Mental Diseases), 125 East Chicago Avenue.
- DAVID C. STRAUS, M.D., Assistant in Surgery, 31 North State Street.
- HERBERT OTTO LUSKY, S.B., Assistant in Physiology, University of Chicago.
- FRED MILLER DRENNAN, S.B., Assistant in Physiology, University of Chicago.
- CHARLES GEORGE MCARTHUR, S.B., Assistant in Pharmacology, University of Chicago.
- MATHILDE KOCH, S.B., Research Assistant in Physiological Chemistry, University of Chicago.
- CHARLES HERMAN VIOL, S.B., Assistant in Chemistry, University of Chicago.
- ERNEST CLEVERDON, M.D., Assistant in Medicine (Pediatrics), 114 Central Avenue, Austin.
- GUSTAVE LEONARD KAUFFMAN, M.D., Assistant in Medicine (Pediatrics), 156 Center Street.
- HENRY WILLIAM ABELMAN, M.D., Assistant in Medicine, 1900 Lincoln Avenue.
- JOHN J. ALDERSON, M.D., Assistant in Medicine, 607 Blue Island Avenue.
- WILLARD WOODARD DICKER, M.D., Assistant in Medicine, 420 North Park Avenue.
- HERMAN ARMIN KLEIN, M.D., Assistant in Medicine, 5001 Calumet Avenue.
- JOHN WESLEY TOPE, M.D., Assistant in Medicine, Oak Park, Ill.
- SIGISMUND FRANKLIN WATERMAN, M.D., Assistant in Medicine, 120 North California Avenue.
- GEORGE EDWARD BAXTER, M.D., Assistant in Medicine (Pediatrics), 4603 Evanston Avenue.
- RALPH HAMILL, M.D., Assistant in Medicine (Nervous and Mental Diseases), 15 East Washington Street.
- ROBERT EDMUND RANSMEIER, M.D., Assistant in Surgery, 2896 Archer Avenue.
- HAMILTON THEODORE KING, M.D., Assistant in Surgery (Orthopedic), Joliet, Ill.
- FLOYD BURKE RILEY, M.D., Assistant in Surgery, 122 South Michigan Avenue.
- DANIEL BERNARD HAYDEN, A.M., M.D., Assistant in Laryngology and Otology, 32 North State Street.

- ERNEST WILLIAM POTTHOFF, M.D., Assistant in Dermatology, Oak Park, Ill.
ARTHUR NORTON MACKEY, M.D., Assistant in Dermatology, 3420 Sheffield Avenue.
WILLIAM GEORGE REEDER, M.D., Assistant in Ophthalmology, 15 East Washington Street.
JOHN FRANK WAUGH, M.D., Assistant in Dermatology, 32 North State Street.
EDWARD ALLEN OLIVER, M.D., Assistant in Cutaneous Pathology, 404 South Ashland Avenue.
CHARLES OTTO CARLSTROM, M.D., Assistant in Kinesitherapy, 122 South Michigan Avenue.
OLE OLUFSON STOLAND, S.M., Assistant in Physiology, University of Chicago.
CHARLES HENRY SWIFT, S.B., M.D., Assistant in Anatomy, University of Chicago.
HANOR A. WEBB, A.B., S.M., Assistant in General Chemistry, University of Chicago.
GEORGE OLIVER CURME, JR., S.B., Assistant in Organic Chemistry, University of Chicago.
LORAN OGDEN POTTER, A.M., Assistant in General Chemistry, University of Chicago.
PAUL NICHOLAS LEECH, S.M., Research Assistant in Chemistry, University of Chicago.
WILLIAM HENRY KUH, S.B., Assistant in Quantitative Analysis, University of Chicago.
RAYMOND DAVID MULLINIX, Lecture Assistant in Chemistry, University of Chicago.
GLADYS ROWENA HENRY, A.B., M.D., Assistant in Pathology, Children's Memorial Hospital.
ESMOND RAY LONG, A.B., Research Assistant in Pathology, University of Chicago.
GLEASON CHANDLER LAKE, S.B., Laboratory Assistant in Pathology, University of Chicago.
ARTHUR HANDLEY HIXSON, S.B., Assistant in Bacteriology, University of Chicago.
WILLIAM FREDERICK DEY, M.D., Assistant in Medicine (Nervous and Mental Diseases), La Grange, Ill.
RALPH CRISSMAN BROWN, M.D., Assistant in Medicine, 122 South Michigan Avenue.
MAURICE BUCHSBAUM, M.D., Assistant in Medicine, 31 North State Street.
RAY HERNDON COX, M.D., Assistant in Medicine, 1005 North Clark Street.
C. A. GRIFFITH, M.D., Assistant in Medicine, River Forest, Ill.
LELAND E. PHIPPS, M.D., Assistant in Medicine, 32 North State Street.
ROBERT CLIFTON REIMCHE, M.D., Assistant in Medicine, 3445 West North Avenue.
EUGENE S. TALBOT, JR., M.D., Assistant in Medicine, 122 South Michigan Avenue.
ISADORE M. TRACE, M.D., Assistant in Medicine, 833 South Ashland Boulevard.
EDWIN T. SECOR, M.D., Assistant in Medicine (Nervous and Mental Diseases), LaGrange, Ill.
PHILIP S. CHANCELLOR, M.D., Assistant in Medicine (Pediatrics), 559 Surf Street.

- CHARLES SCHOTT, M.D., Assistant in Medicine (Pediatrics), 1301 North Clark Street.
- PAUL B. MAGNUSON, M.D., Assistant in Surgery (Orthopedic), 4137 South Halsted Street.
- THOMAS P. LYNAM, M.D., Assistant in Surgery (Orthopedic), 32 North State Street.
- RICHARD B. OLSON, M.D., Assistant in Surgery (Orthopedic), Lombard, Ill.
- HOLLIS E. POTTER, M.D., Assistant in Surgery (Radiology), 122 South Michigan Avenue.
- FRANZ HEINRICH HARMS, M.D., Assistant in Obstetrics and Gynecology, Rush Medical College.
- ROBERT ORLANDO RITTER, M.D., Assistant in Surgery (Orthopedic), 1000 Wells Street.
- HARRIET F. HOLMES, A.B., ~~Special Instructor in Pathological Technique, University of Chicago.~~
- JOSEPH JOHNSTON SHERRILL, M.D., Clinical Assistant in Surgery (Genito-urinary), 161 South State Street.
- EDWARD VON TOLL, M.D., Clinical Assistant in Surgery (Genito-urinary), 915 Belmont Avenue.
- HERMAN ROBERT BAUMGRATH, JR., M.D., Clinical Assistant in Laryngology and Otology, 2000 West Chicago Avenue.
- JULIUS SZYMANSKI, M.D., Clinical Assistant in Laryngology and Otology, 1053 Milwaukee Avenue.
- JOHN CHARLES WILLIAMS, M.D., Clinical Assistant in Laryngology and Otology, 641 Fullerton Avenue.
- PHILIP ALFRED CRUM, M.D., Clinical Assistant in Ophthalmology, 3304 Humboldt Avenue.
- HENRIETTA MAE FARQUHARSON, M.D., Clinical Assistant in Ophthalmology, 15 East Washington Street.
- JOHN JOSEPH KILLEEN, M.D., Clinical Assistant in Laryngology and Otology, 104 South Michigan Avenue.
- PHILIP MAXWELL LE BEAU, M.D., Clinical Assistant in Laryngology and Otology, 156 South Western Avenue.
- EDWARD POWERS NORCROSS, M.D., Clinical Assistant in Laryngology and Otology, 31 North State Street.
- HENRY H. EVERETT, M.D., Clinical Assistant in Laryngology and Otology, 32 North State Street.
- JEANETTE BROWN OBENCHAIN, Ph.B., Technical Assistant in Anatomy, University of Chicago.
- AUGUST JOHNSON, Mechanical Assistant in Physiology, University of Chicago.
- WARDER CLYDE ALLEE, S.B., Laboratory Assistant in Zoölogy, University of Chicago.
- HOMER KING NICOLL, M.D., *Dane Billings* Fellow in Medicine, Rush Medical College.
- DALLAS BALDWIN PHEMISTER, M.D., *Nicholas Senn* Fellow in Surgery, Rush Medical College.
- ADELBERT MONTAGUE MOODY, M.D., Fellow in Pathology and Assistant in Medicine, Rush Medical College.

FELLOWS APPOINTED FOR 1912-13

(IN THE DEPARTMENTS OFFERING MEDICAL COURSES AT THE UNIVERSITY OF CHICAGO)

KENNETH NOEL ATKINS, Ph.B., A.M., Bacteriology.
WYMAN R. GREEN, A.B., A.M., Zoölogy.
HOMER ALLEN HILL, A.B., Zoölogy.
LIBBIE HENRIETTA HYMAN, S.B., Zoölogy.
EDMUND JACOBSON, S.B., A.M., Ph.D., Physiology.
GEORGE LESTER KITE, A.B., M.D., Pathology.
JOHN GEORGE SINCLAIR, S.B., Zoölogy.

EXTRA-MURAL INSTRUCTORS

AT THE HOME FOR DESTITUTE CRIPPLED CHILDREN

WALLACE BLANCHARD, M.D., Assistant Clinical Professor (*extra-mural*) of Surgery (Orthopedic).

AT COOK COUNTY HOSPITAL

SAMUEL G. WEBBER, M.D., Assistant Clinical Professor (*extra-mural*) of Surgery.

AT WEST SIDE HEBREW DISPENSARY

MAY MICHAEL, M.D., Clinical Assistant (*extra-mural*) in Diseases of Children.
LOUIS ELEVER GORDON, M.D., Clinical Assistant (*extra-mural*) in Diseases of the Throat, Nose, and Ear.

AT CHICAGO ISOLATION HOSPITAL

HEMAN SPALDING, M.D., Associate Clinical Professor (*extra-mural*) of Medicine.

AT ST. LUKE'S HOSPITAL

LEWIS L. MACARTHUR, M.D., Assistant Clinical Professor (*extra-mural*) of Surgery.

AT ST. ANTHONY'S HOSPITAL

FRED J. E. EHLMANN, M.D., Clinical Instructor (*extra-mural*) in Medicine.

AT THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY

NORVAL HARVEY PIERCE, M.D., Assistant Clinical Professor (*extra-mural*) of Otology.

OFFICERS OF ADMINISTRATION

AT THE UNIVERSITY OF CHICAGO

HARRY PRATT JUDSON, President of the University, Harper Memorial Library, Room W11.

ALONZO KETCHAM PARKER, University Recorder, Cobb Lecture Hall, Room 2A3.

CHARLES RICHMOND HENDERSON, University Chaplain, Cobb Lecture Hall, Room 1.

THOMAS WAKEFIELD GOODSPEED, University Registrar, Press Building, First Floor, Room 1.

DAVID ALLAN ROBERTSON, Secretary to the President, Harper Memorial Library, Room W13.

ERNEST DE WITT BURTON, Director of the University Libraries, Harper Memorial Library, Room N27.

JOHN MILTON DODSON, Dean of Medical Students, Physiology Building, First Floor, Room 13.

HARRY GIDEON WELLS, Dean in Medical Work, Physiology Building, First Floor, Room 13.

MARION TALBOT, Dean of Women, Cobb Lecture Hall, Room 2A1.

AT RUSH MEDICAL COLLEGE

FRANK BILLINGS, Dean of the Faculty.

JOHN MILTON DODSON, Dean of Students.

OLIVER SAMUEL ORMSBY, Secretary of the Faculty.

EPHRAIM FLETCHER INGALS, Comptroller.

JAMES H. HARPER, Registrar.

THE ADMINISTRATIVE BOARD OF MEDICAL AFFAIRS

AT THE UNIVERSITY OF CHICAGO

THE PRESIDENT, *Chairman*.

THE RECORDER, *ex officio*.

DEAN LEON CARROLL MARSHALL, *ex officio*.

DEAN JOHN MILTON DODSON, *ex officio*.

DEAN HARRY GIDEON WELLS, *ex officio*.

DEAN HENRY GORDON GALE, *ex officio*.

DEAN JAMES ROWLAND ANGELL, *ex officio*.

DEAN MARION TALBOT, *ex officio*.

DR. CHARLES PORTER SMALL, *ex officio*.

PROFESSOR JOHN MERLE COULTER.

PROFESSOR ALBERT ABRAHAM MICHELSON.

PROFESSOR NATHANIEL BUTLER.

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PROFESSORIAL LECTURER WALTER STANLEY HAINES.

PROFESSORIAL LECTURER EPHRAIM FLETCHER INGALS.

PROFESSORIAL LECTURER ARTHUR DEAN BEVAN.

PROFESSORIAL LECTURER JOHN CLARENCE WEBSTER.

PROFESSOR JULIUS STIEGLITZ.

PROFESSOR ALBERT PRESCOTT MATHEWS.

PROFESSOR EDWIN OAKES JORDAN.

PROFESSOR FRANK RATTRAY LILLIE.

PROFESSOR ROBERT RUSSELL BENSLEY.

PROFESSOR CHARLES JUDSON HERRICK.

PROFESSOR ROBERT ANDREWS MILLIKAN.

PROFESSOR HERBERT NEWBY MCCOY.

ASSOCIATE PROFESSOR CHARLES MANNING CHILD.

ASSOCIATE PROFESSOR ANTON JULIUS CARLSON.

ASSOCIATE PROFESSOR WILLIAM LAWRENCE TOWER.

ASSOCIATE PROFESSOR BASIL COLEMAN HYATT HARVEY.

ASSOCIATE PROFESSOR HORATIO HACKETT NEWMAN.

ASSISTANT PROFESSOR DAVID JUDSON LINGLE.

ASSISTANT PROFESSOR NORMAN MACLEOD HARRIS.
ASSISTANT PROFESSOR SAMUEL ALEXANDER MATTHEWS.
ASSISTANT PROFESSOR PRESTON KYES.
ASSISTANT PROFESSOR ROBERT RETZER.
DR. GEORGE ELMER SHAMBAUGH.
DR. E. V. L. BROWN.
DR. ALBERT WOELFEL.
DR. ELIZABETH HOPKINS DUNN.
DR. REUBEN MYRON STRONG.
DR. OSCAR RIDDLE.
DR. VICTOR ERNEST SHELFORD.
DR. GEORGE WILLIAM BARTELMEZ.
DR. PAUL GUSTAV HEINEMANN.
DR. PAUL STILWELL MCKIBBEN.
DR. ARNO BENEDICT LUCKHARDT.

INTRODUCTORY STATEMENT

Students entering with conditions in any branch, or students seeking admission to advanced standing from another medical school, are strongly advised to enter for the Summer Quarter, beginning June 17.¹ The student should, if possible, commence the medical curriculum with the Autumn Quarter in order to pursue the medical courses in proper sequence.

Changes in rules and regulations.—The right is reserved by the faculty to make changes at any time in requirements for admission, curriculum fees, or any rules and regulations.

The Curriculum.—The curriculum of Rush Medical College, extending over four or five annual sessions of nine months (three quarters) each, embraces (1) two years of work in the fundamental branches of Anatomy, both gross and microscopic, Neurology, Embryology, Physiology, Physiological Chemistry, Pharmacology, Bacteriology, and Pathology; and (2) two or three years in the clinical branches of Materia Medica, Therapeutics, Clinical Pathology, Medicine, Surgery, Obstetrics, and the special lines of practice.

Fundamental branches at the University of Chicago.—The courses in the fundamental branches are offered only at the University of Chicago, in the spacious Hull Biological Laboratories, by instructors whose time is wholly devoted to teaching and investigation in their respective lines. It is believed that the student pursuing these studies in the atmosphere of an institution devoted to scientific work cannot but gain a broader and more thorough conception of these sciences. Such a training will not only afford a better preparation for the clinical courses of the Medical College and for the practice of medicine and surgery, but will also enable the student to follow more easily in paths along which medical advances are being made, and to apply these new discoveries in his daily work.

¹ It is greatly to the advantage of every student to begin his medical work without conditions in any of the branches required for admission, especially Physics, Chemistry, and Biology. In these and all other departments of the University of Chicago courses are given in the Summer Quarter by which deficiencies can be made up. For students entering from other medical schools, special review courses are offered in Anatomy, Physiology, and the other fundamental medical sciences, and satisfactory work in these courses will be accepted in lieu of examination on the work of the first two years.

The clinical branches are taught at Rush Medical College, with its Central Free Dispensary, at the Presbyterian Hospital, the Children's Memorial Hospital, the Home for Destitute Crippled Children, the Cook County Hospital, the West Side Hebrew Dispensary, and other hospitals in the vicinity of the College.

Fifth year.—Beginning with the year 1905-6, a *fifth year* was added to the curriculum which, until further announcement, is optional.¹ The work of this year will be that of

A. Graduate work in one of the departments of the College, either as a graduate student or as a Fellow; or

B. An internship in a hospital under the following conditions:² (1) Each student taking such work will be under the constant supervision of the faculty, by whom the hospital in which the internship is taken must be approved. (2) The student must present evidence of thorough clinical work, and an acceptable thesis, involving creditable original work. (3) He may be required to pass a special examination at the end of the year.

On the successful completion of this fifth year he will receive the degree of Doctor of Medicine, *cum laude*.

The requirements for admission comprise (a) the completion of a four-year high-school course, and, in addition, (b) two years of work in a recognized college or university (see pp. 23-24).

It is the firm conviction of the faculty that, under the conditions now prevailing in the practice of medicine, and which are rapidly becoming more exacting, no person can afford to enter upon the study of medicine with a preparation less thorough and comprehensive than that demanded by these minimum requirements. The Medical Examining Boards in some of the states require this amount of premedical work as a prerequisite for licensure. *Every student should complete a four-year college course including the physics, chemistry, and biology above mentioned before entering the Medical School, if his age and other circumstances make it possible for him so to do.* This additional college work should secure for him a greater breadth of culture and a catholicity of interest which will make him a man of larger power, influence, and usefulness in the community.

Admission to advanced standing.—Students or graduates of other medical colleges whose work is recognized by this College may be admitted to advanced standing (see page 27).

Requirements for graduation.—The minimum requirements for graduation comprise attendance upon four sessions of three quarters (nine months) each, the completion of a prescribed amount of work, and the passing of certain examinations both written and practical (see pp. 27-28).

The combined course for the degrees of M.D., and S. B., A.B., or Ph. B.—Attention is called to the fact that courses are offered in the University of Chicago, in the Departments of Art, Literature, and Science, in all the branches of a liberal education (see pp. 25-27).

Higher degrees.—A Master's degree or the degree of Ph.D., may be secured by special work in the medical sciences, and additional residence, in conformity with the regulations of the University covering such degrees.

¹ *The increasing demands for internes has made it possible for every graduate of Rush Medical College in the last five years, to secure such a position in a first-class hospital.*

² A detailed statement of the regulations governing this work is furnished to each student who registers for the fifth year.

The elective system.—The work of the medical curriculum, is in part, elective, the choice of the student for each quarter being subject to certain restrictions (see p. 35).

The quarter system.—The College is in session during four quarters each year, and a student may enter at the beginning of any quarter. *Students beginning their medical work, however, are advised to commence with the Autumn Quarter* (see p. 33).

The tuition fee is sixty dollars per quarter, or one hundred and eighty dollars for each of the four annual sessions, this tuition including all laboratory fees (see pp. 29–33).

Student self-help.—Many opportunities are afforded in Chicago for students to earn a portion (and in exceptional cases the whole) of their expenses. A booklet giving fuller information in regard to this matter will be mailed on application.

GENERAL REGULATIONS

Students are admitted to the Medical Courses as medical students, and as (1) *undergraduate students* (candidates for a Bachelor's degree, S.B., A.B., or Ph.B.). (2) *Graduates* of the University of Chicago, or of other universities or colleges of good standing, are admitted to the medical courses as graduate students; they are allowed all the privileges of the members of the Graduate Schools of the University. (3) In addition to students in regular standing, provision is made for the admission to the University of undergraduate students not seeking degrees. Such students are known as *unclassified students*. They may register for medical subjects, but they are not candidates for the M.D. degree.

1. *Admission.*—(a) Each student must present to the faculty certificates of good moral character, signed by at least two physicians of good standing in the state in which the applicant last resided. Blank certificates for this purpose may be had on application to the Dean. (b) He must be able to comply with the requirements for admission to the medical courses of the University of Chicago (see pp. 23–24). In brief, they consist of a four-year high-school course plus two years of college work, which must have included College Physics, General Chemistry, and Biology, and a reading knowledge of German or French. (c) He will matriculate and register as a student of Rush Medical College as well as of the University at the beginning of his medical course. Such matriculation and registration is accomplished at the University without extra fee.

2. *Medical courses as undergraduate work in the course for a Bachelor's degree.*—(a) The first two years' work in Medicine may be taken as the third and fourth years of the Bachelor of Science course, or, in very large part, of the course for the degrees of A.B. or Ph.B. (For requirements, see pp. 25–27.) Students who wish to enter college and prepare to take the medical work as part of their Baccalaureate course may enter at the beginning of the Junior College Course (first college year or at any further stage of advancement).¹ (b) Each student must comply with 1a. (c) In order to comply with the rules of the Medical Examining Boards of several states, a student will matriculate with the Dean of Rush Medical College (at the University) at the beginning of his work in Medicine. He will consult with the Dean of Medical Students each quarter in regard to his

¹ A student desiring to enter the course as a candidate for the S.B., A.B., or Ph.B. degree is requested to enter into correspondence upon the subject with the Dean of the Senior Colleges of the University of Chicago, Chicago, Ill.

work, and take a card of advice to the Dean of the Senior Colleges, with whom the student will continue to register until he receives a Bachelor's degree. *Credit will not be given toward the M.D. degree unless the student complies with this regulation.*

3. *Admission as a graduate student.*—(a) Admission to the Graduate Schools of the University is granted (1) to those who have been graduated from the Colleges of the University of Chicago with the degree A.B., Ph.B., or S.B.; (2) to those holding Baccalaureate degrees from other institutions of good standing. (b) Application for admission in the case of students not graduates of the University should be accompanied by testimonials as to character and scholarship. Such testimonials should take the form of diplomas, written or printed theses, or satisfactory evidence in some other form of the student's fitness for admission. (c) A graduate student taking the medical course must comply with 1a and 1c. He will consult each quarter with the Dean of Medical Students, and will take a card of advice from him to the Dean of the Graduate School, with whom the student will register. *Credit will not be given toward the M.D. degree unless the student complies with this regulation.* (d) Advanced standing in the medical course is granted for work done in other medical schools according to the conditions stated on p. 27 of this Circular.

4. *Unclassified students.*—(a) Candidates for admission to the University as *unclassified students* (1) must be at least twenty-one years of age; (2) must show good reason for not entering upon a regular course; (3) *must take the entrance examinations of the departments in which they wish to work*; (4) must satisfy the Dean and the particular instructors under whom they desire to study that they are prepared to carry the courses elected.

Unclassified students conform to all regulations of the University, and having been admitted, their continuance depends on the maintenance of a satisfactory standing.

NOTE.—Students entering the University for the first time should make it a point to complete all arrangements for entrance, either by correspondence or in person, at least two days before the opening of the quarter.

THE CURRICULUM

1. *The fundamental medical branches.*—The course for the first two years' work in Medicine consists mainly of instruction in the fundamental medical sciences. It includes the following courses:

a) *Chemistry*, The Chemistry of Medicinal Drugs, $\frac{1}{2}$ major (85).

b) *Anatomy*, $6\frac{1}{2}$ majors as follows: Human Anatomy (Dissecting), 4 majors (1, 2, 3); Splanchnology, Histology, and Cytology, 1 major (10); Embryology, 1 major (Zoölogy 20, or 21); Neurology, $\frac{1}{2}$ major (Anatomy 17).

c) *Physiology*, $5\frac{1}{2}$ majors as follows: Physiology, 3 majors (12, 13, 14); Physiological Chemistry, $1\frac{1}{2}$ majors (19, 20); Pharmacology, 1 major (21).

d) *Pathology*, $2\frac{1}{2}$ majors, as follows: Bacteriology, $1\frac{1}{2}$ majors (21); Pathology 1 major (1A).

e) 3 additional majors in any department or departments of the student's choice, approved by the faculty.

A total of 18 majors.¹ All of this work is given at the University of Chicago.

¹ For definition of major see p. 34.

2. *The clinical medical branches.*—The work of the last two, or clinical, years comprises the following branches: (a) *Materia Medica, Therapeutics, Medical Jurisprudence, and Preventive Medicine*, at least 2 majors; (b) *Pathology*, at least 1 major; (c) *Medicine*, at least $5\frac{1}{2}$ majors; (d) *Surgery*, at least $5\frac{1}{2}$ majors, 1 major of which must be in *Surgical Anatomy*; (e) *Obstetrics and Gynecology*, at least 3 majors; (f) *Laryngology and Otology*, at least 1.2 majors; (g) *Ophthalmology*, at least .8 major; (h) *Skin and Venereal Diseases*, at least 1 major; (i) *Additional work in any branch, or branches, of the student's choice*, at least 2 majors; a total of 22 majors.

REQUIREMENTS FOR ADMISSION

These comprise as a minimum (a) the successful completion of a four-year high-school or academy course, qualifying the student to enter the Junior College (Freshman class) of the University of Chicago, and (b) 18 majors (=6 quarters) of the usual college course, or a full equivalent therefor.

A. HIGH-SCHOOL WORK REQUIRED FOR ADMISSION TO THE JUNIOR COLLEGE (FRESHMAN CLASS), UNIVERSITY OF CHICAGO¹

A student must offer for admission 15 units² of credit by certificate from an approved school or by examination. Among these must be (a) 3 of English, (b) a "principal group" of 3 or more, and (c) a "secondary group" of 2 or more. Of the 15 units 7 must be selected from the subjects named in the groups designated below; 5 may be selected from any subjects for which credit toward graduation is given by the approved school from which the student receives his diploma.

The principal and secondary groups offered may be selected from the following: (1) Greek and Latin, (2) Modern language other than English, (3) History, Civics, and Economics, (4) Mathematics, (5) Physics, Chemistry, Botany, Zoölogy, General Biology, Physiology, Physiography, Astronomy. To form a language group the units must be all in one language. In other groups any combination of subjects may be made. Credit is not given for less than 1 unit each in Mathematics, Physics, Chemistry, or a language. In Latin 2 units must be offered if the subject is to be continued in college. Less than $\frac{1}{2}$ unit in any subject is not accepted.

These requirements may be summarized as follows:

3 units in English.

3 (or more) units in a single group, 1-5.

2 (or more) units in another single group, 1-5.

2 (or less) units in subjects selected from any of the groups 1-5.

[Total 10 units in English and groups 1-5.]

5 units selected from any subjects accepted by an approved school for its diploma.

Entrance with conditions is not permitted. Excess admission credit does not establish any presumptive claim for advanced standing, unless the student has taken a postgraduate high-school course of at least one semester.

¹ A complete and more detailed statement of the requirements and the ground covered by each subject will be sent to any principal, teacher, or student on application to the Dean of Medical Students.

² A unit corresponds to a daily recitation throughout the school year of thirty-six weeks.

Students intending to study medicine are strongly advised to take in the high school 2 units of Latin (Elementary Grammar and Caesar), 3 units of German or French, 1 unit each of Chemistry and Physics—with laboratory work. If these branches have not been taken in the high school, they must be taken as part of the college work required for admission (see paragraph B). One-half unit of Trigonometry is strongly advised. A diploma is not accepted as sufficient evidence of such preparation, but specific statement is required as to the amount and character of the work in each branch of study. Blanks are furnished by the University for the presentation of such credits, and will be mailed on application to the Examiner for Secondary Schools.

B. COLLEGE WORK REQUIRED FOR ADMISSION TO THE MEDICAL COURSE

Eighteen majors (two years) of college work must have been taken, and this work must have included the following branches: (1) Chemistry—(a) 3 majors of Inorganic Chemistry (or 2 majors, if 1 unit of high-school Chemistry with laboratory work has been taken). (b) 1 major of Organic Chemistry. (c) 1 major of Qualitative Analysis. This work in Chemistry corresponds to the courses Chemistry 1, 2, 3, 4, and 6 (see pages 51, 52). The student is advised to take Quantitative Analysis, but this is not required.

(2) Physics—4 majors of Physics (or 2 majors if 1 unit of high-school Physics has been taken). This work in Physics corresponds to the courses Physics 1, 2, 3, and 4 (see page 50).

(3) 2 majors of General Biology (Zoölogy 1 and 2).

(4) A reading knowledge of German or of French (ordinarily 2 units of high-school or 3 majors of college work.)

(5) 3 majors of Latin (Caesar and Elementary Grammar) unless 2 units have been completed in high school.

ACCEPTANCE OF CREDIT FOR HIGH-SCHOOL WORK

Such credits are accepted without examination from affiliated or co-operating schools. Students from schools not recognized by the University must submit to examination in the branches required.

2. *Times and places of examinations.*—Examinations for admission are held three times a year at the University. They are also given, at the request of students or teachers, at any of the regular dates, in cities outside of Chicago in which satisfactory arrangements can be made. Applications for such examinations should be made to the Dean of Affiliations at least thirty days in advance. Examinations for admission at other than the regular dates may be given only at the University, and that by special permission of the Dean and upon the payment of a fee of not less than \$10 or more than \$15 (the amount being dependent on the number of examinations taken).

Candidates for admission are not required to take all the examinations at one time.

3. *Fee for examination for admission.*—A fee of \$5 is charged for examination for admission. This is paid when the first examination is taken. The same fee is paid by students entering upon certificate from co-operating schools.

4. *Students from the University High School and the affiliated and co-operating schools* are admitted to the University upon presentation of a subject certificate covering each of the subjects stated above as required for admission.

5. *Credits from other than affiliated or co-operating schools.*—Credits for work done at high schools or academies not affiliated or co-operating with the University, will be accepted provisionally, provided the principal of the school will certify that the applicant has done good work in the school, and that he is willing the student's credits should be accepted by the University of Chicago as a test of the character of the work done in that school. *By provisional acceptance of credit it is meant that such acceptance will be withdrawn if the student's work in the University during his first two quarters of residence fails to show that his preparation was adequate in the branches for which he sought credit.*

Every student who is considering the question of entering upon the study of medicine is requested to write to the Dean of Medical Students for a blank application for admission, to fill out the same carefully, giving full details of his high-school and college work, and to mail the application, thus completed, to the Dean. He will be informed as promptly as possible as to just what credit he can be given, and in what, if any, branches he is deficient. This will make it unnecessary for the student to estimate closely his own credits, and will secure for him a prompt and definite reply to his inquiry concerning his preparation for the study of medicine.

The college preparation for the medical courses may be accomplished at the University of Chicago in six quarters. A student may be admitted to the medical courses conditioned in not more than four majors of college work, *but all his conditions must have been removed before he can enter upon the work of the second year of the medical course.*

Attention is called to the fact that any credits which may be required in addition to high-school work may be secured in the Colleges of Arts, Literature, and Science of the University of Chicago by attendance during extra quarters before entering the medical course, or, in small part, by taking courses in these Colleges during the student's attendance upon the medical course. Students lacking the full entrance credits are urgently advised to enter the University for the Spring or Summer Quarter, in order to make up deficiencies. Credit will be accepted for such work done in any other college or university of equal standing.

C. REQUIREMENTS FOR THE COMBINED COURSE FOR THE DEGREES
OF S.B. AND M.D.

Students seeking a Bachelor's degree (A.B., Ph.B., or S.B.) from the University of Chicago, in connection with the degree of M.D. from Rush Medical College, must comply with the established regulations of the University prescribed for the courses leading to such degrees. As the fundamental branches of the medical curriculum are taught in the University, the student may combine the course for a Bachelor's degree with that for the Medical degree, electing as science courses those offered in the departments of Anatomy, Physiology, etc., which are also courses in the medical curriculum. The prescribed work for these degrees is indicated on pp. 26, 27.

While it is thus possible for one to secure a Bachelor's degree and the degree of M.D. in from six to six and one-half years, every student should secure a more thorough and comprehensive collegiate preparation if it is possible for him so to do. For students taking this broader course, the following subjects are recommended as of especial value in preparation for medical study: Greek, 3 majors; Calculus, 1 major; Elementary Botany, 1 major; General Morphology of Thallophytes, 1 major; Zoölogy, 3 majors; Introductory Physiology, 1 major; Physical Chemistry, 1 major; Quantitative Chemical Analysis, 1 major; Physiography, 1 major; Psychology, 2 to 4 majors.

Applicants for admission to advanced standing in the courses for the degrees of A.B., Ph.B., or S.B., at the University of Chicago, should apply to the University for the Circular of Information of the Colleges.

TOTAL REQUIREMENTS FOR THE BACCALAUREATE DEGREES

COLLEGE COURSES

College courses, with few exceptions, are given as "majors," one exercise daily throughout a quarter. Three majors and the required work in Physical Culture constitute full work for a quarter. In comparison with admission credits two majors are reckoned as equal to one unit.

REQUIREMENTS FOR THE ASSOCIATE'S TITLE

During his first two year the student is required to take:

1. Two majors of English (courses 1 and 3). English 1 must be taken in the first quarter of residence.

2. A "continuation group" of three majors, which continues the work of either his principal or secondary admission group or of a subject in which he took one unit in the Senior year of high school. These three majors must all be taken in the first year. Careful consideration should be given to the choice of these courses.

3. Enough majors in each of the following "distribution groups" to make his total (high school+college) credit in each group four majors (=2 units).

I. Philosophy, History, and Social Science: Departments I-VI.

II. Modern Language other than English (all 4 majors in one language): Departments XIII, XIV.

III. Mathematics: Department XVII.

IV. Science: Departments XVIII-XXVIII.

The aim of the requirement in Group II is to secure for the student a reading knowledge of at least one modern language other than English. If two units of a language are offered as satisfying the requirements of this group, the student must prove his ability to read it with ease and intelligence by passing a test examination during his first two quarters of residence, or must pass an additional major of the same language in college with a grade not lower than C. If the student passes the first three majors of a language in college with an average grade of B or better, he may be excused from the fourth major. The modern language requirement may be absolved at any time during the first two years by the passing of the test examination. No credit in majors is given in any case for the passing of this examination; it merely relieves the student of the obligation to take further work in modern language.

The title of Associate is conferred upon the completion of 18 majors, with at least 32 grade points, including the fulfilment of the specified requirements as listed above.

REQUIREMENTS FOR A BACHELOR'S DEGREE

The Bachelor's Degree is conferred when the student has completed 36 majors, and obtained at least 72 grade points. These 36 majors shall include one principal sequence of at least 9 coherent and progressive majors taken in one department or in a group of departments, and one secondary sequence of at least 6 majors selected from a different department or group of departments. These

sequences must have the approval of the Dean. The courses in medicine may be counted in satisfaction of either of these sequences and the pre-medical courses may be counted in satisfaction of the other.

The degree of A.B. is conferred when these two sequences consist respectively of 11 majors of Latin and 9 majors of Greek (7 if all are taken in the University) including entrance work.

The degree of Ph.B. is conferred when the principal sequence has been taken in Departments I-XVI.

The degree of S.B. is conferred when the principal sequence has been taken in Departments XVII-XXVIII.

Mathematics may at the option of the student be used as the principal department for the degree of either Ph.B. or S.B.

ADMISSION TO ADVANCED STANDING

Students are admitted to advanced standing in the Medical Course of the University as follows:

Students from other medical schools whose standards are fully equivalent to those of this institution may receive credit for time spent—estimated in months—and for work successfully completed in such institutions, provided it is equivalent to corresponding work in the medical course in the University. Such a student should give an explicit statement in regard to his preliminary education before beginning the study of medicine, the date of beginning and ending of each session attended in a medical college, together with the name of the college and a statement of the studies which he has successfully completed, this latter statement setting forth, if possible, the exact number of hours given to each subject. The credit claimed in each branch must be passed upon by the Dean of Medical Students or by the head of the corresponding department at the University.

Application blanks.—Blanks for presenting these credits will be furnished on application to the Dean of Medical Students. A student may matriculate at any time in person, or by correspondence.

Students seeking admission to advanced standing are urgently advised to enter for the Summer Quarter.

REQUIREMENTS FOR GRADUATION

The following are the requirements for the degree of Doctor of Medicine:

The candidate must not be less than twenty-one years of age, and must have studied medicine the legal period. He must have paid all dues, must have complied with all the requirements, and must have maintained unexceptionable conduct while at the college.

He must have attended twelve full quarters, or an equivalent amount of time, in a recognized medical school, of which at least the last three quarters must have been in this institution, and forty-five months must have elapsed between the beginning of his first course of medical lectures and the date of his graduation.

He must have completed successfully all of the work required, as follows: 18 majors of work in the Freshman and Sophomore years, comprising a minimum of 6½ majors in Anatomy (from courses offered in the Department of Anatomy and Neurology and the subdepartment of Embryology; these courses include both

Gross and Microscopic Anatomy¹); 6 majors in Physiology (from courses offered in the Department of Physiology and the subdepartments of Physiological Chemistry and of Pharmacology); 2½ majors in the Departments of Pathology and Bacteriology; 3 majors in one or more of these departments of his choice.²

His work for the first two years must be pronounced satisfactory by the Committee on Promotions, when a certificate for the completion of the first 18 majors of medical work will be issued to him.

Twenty-two majors of work in the Junior and Senior years, comprising a minimum of 2 majors in Pharmacy, Materia Medica, Therapeutics and Preventive Medicine; 1 major in Pathology; 5½ majors in Medicine; 5½ majors in Surgery, at least .8 of a major of which must be in Surgical Anatomy; 3 majors in Obstetrics and Gynecology,³ at least 2 majors of which must be in Obstetrics; 1.2 majors in Laryngology and Otology; .8 major in Ophthalmology; 1 major in Skin and Venereal Diseases, at least .4 major in each; 2 additional majors in any branch or branches of his choice. These requirements are presented in detail in the departmental statements, pp. 53-71.

He must have passed, successfully, a final examination, both written and practical, in Materia Medica and Therapeutics; Pathology; Medicine; Surgery; Obstetrics and Gynecology; in Laryngology and Otology; Ophthalmology; Skin and Venereal Diseases.

He must attend the graduating exercises and receive his diploma in person, unless excused for cause by special action of the faculty.

GENERAL INFORMATION FOR STUDENTS ENTERING THE FRESHMAN AND SOPHOMORE CLASSES

ROUTINE OF ENTRANCE

I. CREDENTIALS

Applications should be addressed to The University of Chicago, or to Rush Medical College, Chicago, Ill. When presenting himself for admission to the University, the student should bring his *admission credits*, if he is entering a Junior College at its beginning; his *letter of dismissal* and an official statement concerning his previous work, if he is entering with advanced standing from another institution; and a *diploma*, if he is applying for admission to a Graduate School.

These documents should be presented at the office of the Dean of Medical Students, Room 13, Physiology Building. Detailed directions will be furnished in the Dean's office as to the mode of matriculating and registering for courses of instruction desired.

II. MATRICULATION AND REGISTRATION

1. *Time of registration.*—(a) Students in residence in the Summer Quarter will register for the Autumn Quarter during the second week in August. Students in residence in the Autumn Quarter will register for the Winter and Spring Quarters during the first week of December on the days announced on the bulletin boards and in the *Weekly Calendar*. (b) Students entering the University for the

¹They must include the dissection of the lateral half of the human body.

²As to the conditions governing such choice see p. 35, paragraph 4.

³Each student must have personally attended not less than five patients in confinement.

first time, or resuming work after absence for a quarter, will register on or before the last day of the month preceding the quarter in which work is to be done.

2. *Order of procedure for new students.*—New students will: (a) In case they come from a secondary school, present credentials to the Examiner and secure a card of admission credits. Those entering from colleges submit credentials to the Examiner. This may be done by correspondence. New students are urged to send their credentials to the Examiner at least two days before they come to register. (b) Matriculate in the office of the Dean of the School or College to which admission is desired. Matriculation is granted on presentation of the proper credentials which entitle the student to enter the University. As evidence of admission the student is given a *matriculation card*. This card should be retained under all circumstances, as it must be shown whenever membership in the University is to be demonstrated. (c) Register, in the same office, the courses of study desired for the ensuing quarter. For this purpose the student will be given a *registration card* for the quarter, on which, after consultation with the Dean, the courses desired will be entered. (d) Pay the University fees for the ensuing quarter. In order to do this, the student will present the matriculation card and the proper registration card at the office of the Registrar, Press Building, Room 1. On payment of fees the Registrar will stamp the matriculation card and return it to the student, together with a receipt for tuition fees and for laboratory fees (if any).

Tuition and other fees may conveniently be paid by check to the order of the University of Chicago. Details as to fees will be found below.

The names of the students will be sent to instructors as entitled to attend classes *only after the fees have been paid*, as above specified.

FEEs FOR MATRICULATION, TUITION, DEPOSITS, AND APPARATUS

1. *Matriculation fee.*—(a) The matriculation fee is \$5, and is required of every student on entrance to the University. It is payable but once. (b) A medical student will also matriculate as a student of Rush Medical College. No extra fee is charged, and the matriculation is good for the complete medical course including the clinical years. (c) An undergraduate student, candidate for a Bachelor's degree, who wishes to take the medical course as a part of the work for the Bachelor's degree, will matriculate also as a student of Rush Medical College at the beginning of the first year of his work in the medical course. No extra fee is charged, and the matriculation is good for the complete medical course, including the clinical years.

NOTE.—Matriculation for Rush Medical College can be accomplished at the University through the Dean of Medical Students.

2. *Tuition fee.*—(a) The tuition fee for the medical courses (3 to 3½ majors each quarter) is \$60 per quarter, including all laboratory fees.

Under the medical practice acts and the rules of the medical examining boards of most of the states of this country, an applicant for a license to practice must have attended at least four annual sessions in a recognized medical school. Therefore, a student taking the medical courses with a view of procuring the degree of M.D., must matriculate *as a medical student* at least forty-five months before the date of his expected graduation in medicine. From the date of such matriculation he is required to pay the tuition fee for the medical courses, whether he is registered as a Senior College student, a graduate student, or otherwise.

In order that a graduate student, Senior or Junior College student, may have his work counted toward the M.D. degree, he must be matriculated as a student of Rush Medical College and must each quarter secure from the Dean of Medical Students a card of advice as to registration, and must present this card to his own Dean on registering with him.

NOTE.—A student who is taking the medical courses with no intention of securing the medical degree may, if he prefers, pay the usual University fee of \$40 per quarter, with additional laboratory fees as follows:

In Chemistry and Practical Gross Anatomy, \$5 for a major course and \$2.50 for a minor course.

In all Biological Laboratory courses, except Practical Gross Anatomy, \$2.50 for a major course and \$1.25 for a minor course.

(b) Students taking two majors or less will pay \$20 per major. (c) All tuition and laboratory fees are due and payable on or before the FIRST DAY of EACH QUARTER. All fees are payable to the Registrar, Press Building, Room 1.

Registration is not complete until all University bills are paid. Those who fail to meet this obligation within the first five days of the quarter are not regarded as members of the University. After the fifth day, to secure membership in the University, the consent of the Dean and the payment of a fee of \$5 for late registration will be required.

3. *Deposits.*—(a) A deposit of \$5 is required from each student to cover the cost of unnecessary damage in the University buildings, and of avoidable loss and breakage in the laboratories. The deposit must be made on entering the University. Deductions will be made from this deposit to cover the cost of articles not returned, or of damage to University property. Each student will be charged for damage or loss for which he is individually responsible, and for his *pro rata* share of damage or loss, the responsibility for which cannot be individually located. The balance will be refunded. (b) Each student who procures a skeleton from the Osteological Laboratory will deposit \$12 for the same, which sum will be refunded when the skeleton is returned uninjured.

4. *Microscopic and other laboratory apparatus and supplies.*—(a) A compound microscope is required for most of the medical courses. Every student is strongly advised to purchase a good microscope, with an immersion lens, in order that he may become familiar with the same instrument which he will use after his graduation. Students not possessing a microscope may rent one from the University Supply Department, at a cost of \$1.50 per quarter for a compound microscope, and \$1 additional for an immersion lens. (b) Students doing laboratory work in the departments of Zoölogy, Anatomy, Physiology, Botany, Bacteriology and Pathology are required to purchase a laboratory supply and breakage ticket at the office of the Registrar, and file the same at the laboratory supply store, Room 10, Botany Building. (c) Students taking courses in Chemistry are required to purchase Chemistry coupon tickets. Unused portions of coupon tickets are refunded. (d) The necessary textbooks may be purchased at the University Press. (e) All students taking courses in the Department of Physical Culture are required to provide themselves with a gymnasium suit for use in the gymnasium. The cost of such a suit is about \$4.

ROOMS, BOARD, AND GENERAL EXPENSES

There are ten dormitories on the University quadrangles. Two of these are reserved for the students of the Divinity School, and five are for women. A University house is organized in each dormitory; each House has a Head

appointed by the President of the University, and a House Committee, elected by the members; also a House Counselor, selected from the Faculties of the University by the members of the House. The membership of the House is determined by election, and each House is self-governed under the general control of the University Council.

The cost of rooms in the dormitories is from \$20 to \$74 per quarter of twelve weeks. This includes heat, light, and care. Each hall for women has separate dining-hall and parlors. The cost of table board in these halls is \$4.50 per week, with a minimum of \$50 for any one quarter.

All applications for rooms, or for information concerning rooms and board within or without the quadrangles, should be made to the Registrar.

For further details, see special circulars as to rooms and board, which will be sent on application.

The following table will furnish an estimate of the annual expenses for thirty-six weeks of a student in the University, residing within the quadrangles:

	Lowest	Average	Liberal
University bill, tuition*	\$180.00	\$180.00	\$180.00
Rent and care of room	60.00	105.00	225.00
Board	100.00	126.00	225.00
Laundry	15.00	25.00	35.00
Textbooks and stationery	10.00	20.00	50.00
Total	\$365.00	\$456.00	\$715.00

*Medical students attending the first quarter must pay the matriculation fee of \$5 to the University.

Rooms outside the quadrangles, furnished with heat, light, and care, may be obtained at from \$1.50 a week upward, the \$1.50 rate being easily secured where two students room together. Many places offer room and board from \$5 upward. The Men's Commons, Hutchinson Hall, offers to students meals *à la carte*. During the Summer Quarter the Men's Commons is open to both men and women. A list of approved boarding places outside the quadrangles is kept on file at the Housing Bureau, Cobb Lecture Hall, and information regarding them may there be obtained.

GENERAL INFORMATION FOR STUDENTS ENTERING THE JUNIOR AND SENIOR CLASSES AT RUSH MEDICAL COLLEGE

Attendance.—In order to be credited properly with attendance on any given term or course, it is imperative that students be present at the opening of each quarter. *After the second day of any quarter no student can register except by special consent of the Dean, and the payment of \$5 late registration fee.* At least 80 per cent of any quarter or of the scheduled hours in any course for which a student is registered, must be attended in order to receive credit for the course.

Matriculation.—Each student matriculates on entering the College for the first time, but not for subsequent quarters. Matriculation may be accomplished by mail.

Registration.—Each student registers at the beginning of each quarter, or earlier if desired, by the payment of the tuition fee for the quarter, and filing a registration card.

In case of early registration this card is retained at the Registrar's office and *must be reclaimed by the student in person on the first or second day of the quarter. If not reclaimed at that time, the student's registration for the quarter will be canceled, and can only be restored by the consent of the Dean and the payment of \$5 late registration fee.*

A student, upon entering the College at the beginning of his first quarter, will procure from the Registrar a blank application for admission, fill out the same carefully, and return it to the Registrar, with the matriculation fee, for which he will receive a receipt.

The student will then present himself to the Dean of Students, and exhibit to him the credentials for admission to advanced standing (see requirements for admission to advanced standing, p. 27).

The Dean will issue a card certifying admission to the proper class, and will advise respecting the courses of study to be taken.

College fees.—(1) Matriculation fee \$5, payable but once. (2) Tuition for each quarter, \$60. (3) A discount of \$5 is made when the fee for three successive quarters is paid in advance. (4) No student can be assigned to any college work until his fees are paid. (5) The annual ticket for the County Hospital is \$5, which is procured from the Warden at the Hospital.

Deposits.—A deposit of \$5 is required from each student to cover the cost of unnecessary damage in the College buildings, and of avoidable loss and breakage in the laboratories. Deductions will be made from this deposit to cover the cost of articles not returned, or of damage to College property. Each student will be charged for damage or loss for which he is individually responsible, and for his *pro rata* share of damage or loss, the responsibility for which cannot be individually located. The deposit must be made on entering the College.

Members of the graduating class may rent from the College the cap and gown worn at the commencement exercises. These articles are to be returned in good order.

PHYSICIAN'S FEE

Graduates of this College are admitted to all lectures upon the payment of the annual fee of \$5. Graduates of other colleges, attending the full course, will pay the fees of undergraduate students, or a physician may pay \$20 per month, which entitles him to attend all the courses offered for that period.

The number of persons who may register for some courses is limited. No student or practitioner is admitted to such course beyond the limit specified.

Graduates of this or other colleges who are visiting the city for a brief time are cordially welcomed, but are required to procure complimentary tickets at the office.

No one is authorized to make any modification of the terms regarding fees. On financial matters the Registrar, who represents the Comptroller at the College office, should be consulted.

The right is reserved to make changes in the fees, curriculum, or in any other matter at any time.

Schedule of lecture hours.—Schedules are issued from the College office giving the time of each exercise.

Board and lodging.—Rooms may be obtained in the vicinity of the College at from \$1 to \$3 per week. Day board may be had at from \$3 to \$5 per week. Board and room together may be obtained at from \$3.50 to \$7 per week. A Bureau of Information is maintained at the College to which students may apply for directions as to desirable board and lodging.

Books and instruments.—The average annual cost of the required books and instruments varies from \$15 to \$20.

The following table will furnish an estimate of the expenses of a student for each year at Rush Medical College:

	Lowest	Average	Liberal
Tuition for each year.....	\$180.00	\$180.00	\$180.00
Board and room.....	145.00	180.00	252.00
Laundry.....	15.00	21.00	36.00
Books and instruments.....	15.00	21.00	36.00
Incidental expenses.....	45.00	75.00	105.00
Total.....	\$400.00	\$447.00	\$609.00

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

A branch of the Young Men's Christian Association is in active operation at Rush Medical College, and the headquarters of the West Side Association are situated within a short distance of the College buildings. Membership in the Association, with the privilege of gymnasium, bathrooms, lecture courses, etc., may be obtained through the Rush Medical branch at reduced prices. Further information in regard to the Association may be obtained by application to the Rush Medical branch of the Association.

THE QUARTER SYSTEM

The academic year is divided into four quarters. The Summer Quarter is divided into two terms. The year begins with the first day of the Summer Quarter.

The Autumn Quarter begins on October 1, except when this day falls on Sunday, when it begins on October 2; and it ends December 23, except that when this day falls on Saturday or Sunday it ends the preceding Friday; and when December 23 falls on Monday it ends the preceding Saturday.

The Winter Quarter begins January 2, except when this day falls on Saturday or Sunday, when it begins the Monday following; and it ends on the Friday falling between March 18 and March 24 inclusive.

The Spring Quarter begins on the Monday falling between March 28 and April 3 inclusive; and ends on the Friday falling between June 12 and 18 inclusive.

The Summer Quarter begins on the Monday falling between June 15 and 21 inclusive; and ends on the Friday falling between August 28 and September 3 inclusive.

Official University Holidays are observed on Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, and Thanksgiving Day. When one of these days falls on Sunday, the following Monday shall be observed as a holiday only in the case of Memorial Day and Independence Day.

THE MEDICAL CURRICULUM AS RELATED TO THE QUARTER SYSTEM

The general course of instruction in Rush Medical College requires four years of study in residence, with a minimum of attendance upon three quarters of each year. These years are designated as the Freshman, Sophomore, Junior, and Senior years, respectively.

A student may begin his college work on the first day of any quarter (see, however, p. 35, §5), and may continue in residence for as many successive quarters as he desires, and will receive credit for work accomplished. Attendance during all the four quarters of the year is optional, but will not secure a time credit of more than one year in a medical school. At least forty-five months must elapse between the date of the first matriculation and the date of graduation. Under the restriction imposed, this system does not conflict with the existing medical-practice acts, nor with the rulings of the various State Boards of Medical Examiners.

THE SUMMER QUARTER

Attention is directed to the special opportunities afforded for medical study in the Summer Quarter. The climate of Chicago is particularly well adapted to midsummer work. Instruction in all departments is given in the Summer Quarter.

DEFINITION OF MAJOR AND MINOR

A Major course is defined as a didactic or recitation course, occupying 5 hours a week for one quarter (a total of 60 hours), or a laboratory, practical, or clinical course, occupying 10 hours a week for one quarter (a total of 120 hours). A double major occupies twice the number of hours per week for the quarter.

A Minor course is a didactic or recitation course, occupying 5 hours a week for one-half a quarter, of six weeks; or a laboratory course, occupying 10 hours per week for a similar period. The value of each course in the following departmental statements is stated as a *major* (Mj.), a *double major* (DMj.), a *minor* (M.), a *double minor* (DM.), or the decimal fraction of a *major* or *minor*.

GRADUATE COURSES IN MEDICINE FOR PHYSICIANS AND
ADVANCED STUDENTS

Special opportunities are afforded to physicians and graduate students at Rush Medical College and at the University for advanced and research work in Physics, Chemistry, Zoölogy and Embryology, Anatomy, Neurology, Psychology, Physiology, Physiological Chemistry, and Pharmacology, and in Pathology and Bacteriology in Medicine, Surgery, Obstetrics, Gynecology, and in the other clinical departments. Research work may be conducted independently, or under the direction of an instructor in the department to which it belongs.

Physicians are admitted on payment of the matriculation fee, and payment of fees in proportion to the amount of work taken (see p. 32). The applicant's fitness for any course which he desires to take should be ascertained by consultation with the head of the respective department.

All of the courses offered are well adapted to students of this class, and they are outlined in pp. 38-71 of this Circular. Correspondence is invited in reference to special work other than the courses offered. It will be sufficient to address letters in reference to such courses to Rush Medical College.

Students desiring to engage in work leading to the degrees of Master of Science, Master of Arts, Master of Philosophy, or to the degree of Doctor of Philosophy, are requested to write for the Circular of Information of the Graduate Schools, the University of Chicago.

THE WORK OF THE MEDICAL COURSE FOR THE FRESHMAN AND SOPHOMORE YEARS

1. *Outline of the course.*—The course for the first two years' work in Medicine consists mainly of instruction in the fundamental medical sciences: Human Anatomy, Microscopic Anatomy, Histology, Neurology, Embryology, Physiology, Physiological Chemistry, Toxicology, Pharmacology, Bacteriology, and Pathology. All this work is given at the University of Chicago.

2. *Amount of work.*—The amount of work required is 18 majors.

3. *The curriculum.*—The following courses constitute the curriculum recommended for and pursued by the majority of the students:¹

a) *Chemistry*, the Chemistry of Medicinal Drugs, $\frac{1}{2}$ major (85).²

b) *Anatomy*, $6\frac{1}{2}$ majors as follows: Human Anatomy (Dissecting), 4 majors (1, 2, 3); Splanchnology, Histology, and Cytology, 1 major (10); Embryology, 1 major (Zoology 20 or 21); Neurology, $\frac{1}{2}$ major (Anatomy 17).

c) *Physiology*, $5\frac{1}{2}$ majors as follows: Physiology, 3 majors (12, 13, 14); Physiological Chemistry, 2 majors (19 and 20); Pharmacology, 1 major (21).

d) *Pathology*, $2\frac{1}{2}$ majors, as follows: Bacteriology, $1\frac{1}{2}$ majors (21); Pathology, 1 major (1).

e) 3 majors in any branch or branches of the student's choice, as approved by the faculty.

4. *Election of medical courses.*—Students with adequate preparation and special qualifications are permitted to elect other courses (usually advanced or research work), in lieu of some of those above prescribed.

In electing his work the student should bear in mind: (a) That the right of election must be confirmed in writing in advance by the Dean and by the head of the department concerned; (b) that his registration for each quarter must receive the approval of the Dean; (c) that the prerequisites for any course must have been satisfied before the course can be elected; (d) that a minimum amount of work in the several branches is required for graduation in Medicine.

5. *Arrangement of courses.*—The order of courses has been arranged in such a way as to insure so far as possible for the student beginning his medical studies with any single quarter of the year a complete annual course during any three consecutive quarters; *but students are advised to begin their medical work proper with the Autumn Quarter.*

ARRANGEMENT OF COURSES FOR SIX QUARTERS

The following table shows the arrangement of the courses for the six quarters of work comprised in the first two years of Medicine and the recommended sequence of studies. No student, however, is obliged to follow the order given, or to take full work in any quarter. Credit will be given for every course satisfactorily completed.

¹ Detailed statements concerning the courses are given below under the various departments of instruction. They should be consulted in every case in regard to equivalent courses which may be submitted for those whose numbers are given in the above table.

² The numbers in parentheses refer to the course numbers in the corresponding department.

FIRST NINE MAJORS OF WORK
(Freshman Year of the Medical Course)
AUTUMN QUARTER, 1912

Subject	Department	Course No.	Value
Splanchnology, Histology, and Cytology	Anatomy	10	1 Mj.
Dissection (Human).....	Anatomy	1, 2	2 Mjs.
Elective.....			$\frac{1}{2}$ Mj.

The following other courses are given in this quarter and are open to students with advanced standing and the necessary prerequisites: Bacteriology, Physiology, Analytical Chemistry, laboratory work in Organic Chemistry, Human Anatomy, and advanced work in all the departments.

WINTER QUARTER, 1913

Subject	Department	Course No.	Value
Neurology.....	Anatomy	17	$\frac{1}{2}$ Mj.
Dissection (Human).....	Anatomy	3 or 4	1 Mj.
Physiological Chemistry.....	Physiology	19	1 Mj.

Other courses given are: Analytical Chemistry, Physiology, Pathology, and advanced work in all the departments.

SPRING QUARTER, 1913

Subject	Department	Course No.	Value
Embryology.....	Zoölogy	20	1 Mj.
Physiology.....	Physiology	12	1 Mj.
Dissection (Human).....	Anatomy	3 or 4	1 Mj.

Other courses given are: Analytical and Organic Chemistry, Chemistry of Medicinal Drugs, Pathology, Pharmacology, and advanced work in all the departments.

SECOND NINE MAJORS OF WORK
(Sophomore year of the Medical Course)
AUTUMN QUARTER, 1912

Subject	Department	Course No.	Value
Bacteriology.....	Pathology	21	1 $\frac{1}{2}$ Mjs.
Physiology.....	Physiology	13	1 Mj.
Physiological Chemistry.....	Physiology	20	1 Mj.

Other courses given are: Human Anatomy, and advanced work in all the departments.

WINTER QUARTER, 1913

Subject	Department	Course No.	Value
Physiology.....	Physiology	14	1 Mj.
Pharmacology.....	Physiology	21	1 Mj.
Pathology.....	Pathology	1	1 Mj.

Other courses given are: Splanchnology, Physiological Chemistry, Physical Examination, and advanced work in all the departments.

SPRING QUARTER, 1913

Subject	Department	Course No.	Value
3 majors in any department or departments of the student's choice.....			3 Mjs.
Chemistry of Medicinal Drugs.....	Chemistry	85	$\frac{1}{2}$ Mj.

Other courses given are: Embryology, Physiology, Human Anatomy, Neurology, and advanced work in all the departments.

THE WORK OF THE CLINICAL YEARS

Elective and optional courses.—A certain number of courses, especially in the Freshman and Sophomore years of study, are required as essential to securing credit in making up the four-year curriculum which must precede graduation. All of the courses offered in the Junior and Senior years are elective; that is, the student will be required to select from the list of elective courses a number sufficient to insure him credit for about eleven majors each year. The term "major" is fully explained in another paragraph. By this system the student can select, not only his line of study, but also his teachers in such special lines, and can, further, so arrange his work that in successive years he can practically include all branches taught in the College. He will be required to present, however, a minimum amount of credit in each department. See requirements for graduation (p. 27).

Advice by the head of each department as to the recommended sequence of courses is contained in a circular of information issued to each student at the beginning of the Autumn Quarter.

The quarter system with elective courses is especially well adapted to the medical curriculum, and possesses the advantages of allowing each student to select a portion of his studies, and so to adapt his course to his tastes, his abilities, and his needs. The plan is *not* designed, however, to enable a student to prepare for a special line of practice. A broad and thorough education in general medicine is essential for adequate preparation for special practice in later years.

Optional courses, in addition to those described above, are offered to students who desire to add to the regular courses as outlined in the requirements for graduation. These optional courses are designed to promote a higher scholarship, and to increase facilities for work in special departments.

FIFTH YEAR

Beginning with the session of 1905-6 a fifth year was added to the curriculum which, until further announcement, will be optional. The work of the year will be that of (A) graduate work in one of the departments of the College; or (B) an internship in a hospital under the following conditions: (1) Each student taking such work will be under the constant supervision of the faculty, by whom the hospital in which the internship is taken must be approved. (2) The student must present evidence of thorough clinical work, and present a thesis involving original work. (3) He may be required to pass a special examination at the end of the year. On the successful completion of this fifth year he will receive the degree of Doctor of Medicine *cum laude*.

I. THE DEPARTMENT OF ANATOMY

(AT THE UNIVERSITY DEPARTMENT XXIII AND INCLUDING COURSES IN THE DEPARTMENT OF ZOOLOGY)

OFFICERS OF INSTRUCTION

ROBERT RUSSELL BENSLEY, A.B., M.B., Professor of Anatomy.
CHARLES JUDSON HERRICK, Ph.D., Professor of Neurology.
BASIL COLEMAN HYATT HARVEY, A.B., M.B., Associate Professor of Anatomy.
ROBERT RETZER, M.D., Assistant Professor of Anatomy.
GEORGE ELMER SHAMBAUGH, M.D., Instructor in Anatomy of the Ear, Nose, and Throat.
ELIZABETH HOPKINS DUNN, A.M., M.D., Instructor in Anatomy.
GEORGE WILLIAM BARTELMEZ, Ph.D., Instructor in Anatomy.
PAUL STILWELL MCKIBBEN, Ph.D., Associate in Anatomy.
EDMUND VINCENT COWDRY, Ph.D., Associate in Anatomy.
CHARLES HENRY SWIFT, S.B., M.D., Assistant in Anatomy.
JEANETTE BROWN OBENCHAIN, Ph.B., Technical Assistant in Anatomy.

INTRODUCTORY

The Department of Anatomy is organized to provide for instruction and research in vertebrate anatomy, including human anatomy, histology, embryology, and neurology. Two majors of elementary biology (Zoölogy and Botany 1 and 2) or their equivalent are prerequisite for all courses in the department except 0 and 16.

Students of medicine and other students desiring to study anatomy are strongly recommended to plan their work so that courses in vertebrate anatomy (Zoölogy 17) and vertebrate embryology precede the work in human anatomy. The recommended order of courses in preparation for work in human anatomy would thus be as follows: General Biology 1; General Biology 2; Zoölogy 17; Anatomy 10; Anatomy 10A; Zoölogy 19; Zoölogy 20.

All students taking courses in anatomy should have a good knowledge of French and German. For graduate students this is indispensable.

Students intending to take courses in anatomy in satisfaction of the requirements for the degree of S.B., and those looking forward to graduate work in anatomy, are recommended to plan their work in accordance with the general statement of the biological departments concerning courses in Biology. To such

students the following courses in anatomy are recommended, to be taken in the order named: 10, 10A, 1, 2, 3, 4, 17, 18. The course in introductory anatomy (Anatomy 0) is designed for students who do not intend to proceed further with work in anatomy.

Courses in the embryology and comparative anatomy of vertebrates to the extent of three majors will be accepted by the departments as part of the total majors required for graduation.

Students preparing for graduate work in Neurology are expected to take a course in elementary psychology and one or more courses in experimental psychology.

COURSES OF INSTRUCTION

JUNIOR COLLEGE COURSES

0. Introductory Anatomy.—A course on the structure of the human body for college students other than medical students. Laboratory fee, \$2.50. Mj. Spring. Two lectures, six hours laboratory work. ASSOCIATE PROFESSOR HARVEY AND ASSISTANT.

SENIOR COLLEGE COURSES

1, 2, 3. Human Dissection.—The student makes a complete dissection of all structures, using atlases and textbooks as guides. The work is largely independent. Laboratory fee, \$5 per major. 4 Mjs. Autumn, Winter, and Spring. Lectures, 2:00, M., W., F.; laboratory work, 2:00–5:00, M.–F., ASSOCIATE PROFESSOR HARVEY, ASSISTANT PROFESSOR RETZER, MR. COWDRY AND OTHERS.

Course 1.—Dissection of Arm (Human). 1 Mj.

Course 2.—Dissection of Leg (Human). 1 Mj.

Course 3.—Dissections of Thorax and Abdomen (Human). 1 Mj.

Course 4.—Dissection of Head and Neck (Human). 1 Mj.

6. Human Osteology.—A systematic study of the human skeleton. $\frac{1}{2}$ Mj. Summer. Lecture, 2:00–3:00, Th.; laboratory, 2:00–5:00, F., ASSISTANT PROFESSOR RETZER.

7. Topographical Anatomy.—A laboratory course in human anatomy, including dissection and the study of models, preparations, and transverse sections. Prerequisite: courses 1, 2, and 3. Laboratory fee, \$5. Mj. Summer, ASSISTANT PROFESSOR RETZER.

10. Histology.—A brief course on the structure of the cell and elementary tissues will be followed by a systematic study of the structure of organs. Laboratory fee, \$2.50. Mj. Autumn, PROFESSOR BENSLEY, DR. BARTELMEZ, MCKIBBEN, AND SWIFT.

10A. Histology.—A continuation of course 10. M. Winter, First Term, PROFESSOR BENSLEY, DR. BARTELMEZ, MCKIBBEN, AND SWIFT.

16. Elementary Neurology.—An elementary course on the structure of the central nervous system. Laboratory fee, \$2.50. Mj. Spring, PROFESSOR HERRICK AND DR. MCKIBBEN.

17. Gross and Microscopic Anatomy of the Nervous System.—An introductory course for medical students and others. Prerequisite: course 10. Laboratory fee, \$1. $\frac{1}{2}$ Mj. Winter, PROFESSOR HERRICK, DR. BARTELMEZ, MCKIBBEN, AND SWIFT.

18. Neurology.—Course 17 continued. Mj. Spring, PROFESSOR HERRICK, DR. BARTELMEZ, MCKIBBEN, AND SWIFT.

20. Anatomy of the Ear, Nose, and Throat.—Special anatomy for practicing physicians. Laboratory fee, \$2.50. DM. Summer, First Term, DR. SHAMBAUGH.

21. Anatomy of the Organs of Special Sense.—Prerequisite: course 10 or 16. Laboratory fee, \$2.50. Mj. Spring, DR. DUNN.

GRADUATE COURSES

25. Comparative Neurology.—The evolution of the architecture and functions of the vertebrate nervous system. Two lectures, six hours laboratory work weekly. Prerequisite: courses 17 and 18. Laboratory fee, \$2.50. Mj. Autumn, PROFESSOR HERRICK.

28, 29, 30. Neurological Research.—Admission to these courses may be obtained only after consultation with the Professor of Neurology. A good knowledge of general anatomy, physiology, and neurology will be expected. 3 Mjs. or 3 DMjs. Autumn, Winter, Spring, and Summer, PROFESSOR HERRICK.

35. Cytology.—The structure of the cell considered from the point of view of its bearing on problems of cell function. Mj. Autumn, PROFESSOR BENSLEY.

36. Histology of Secreting Glands.—In this course the changes exhibited by different secreting glands in various phases of functional activity, will be studied. Mj. Winter Quarter, PROFESSOR BENSLEY.

37. Histology of the Organs of Internal Secretion.—Mj. Spring, PROFESSOR BENSLEY.

38. Morphology of the Blood.—Mj. Spring, DR. SWIFT.

39. Organogeny.—A practical course on the development of organs in the human embryo. Prerequisite: vertebrate embryology. Laboratory fee, \$2.50. Mj. Spring and Summer, DR. BARTELMEZ.

40. Advanced Work.—Opportunities are offered for advanced work in all branches of anatomy. Laboratory fee, \$2.50 per major. PROFESSORS BENSLEY AND HERRICK, ASSOCIATE PROFESSOR HARVEY, AND ASSISTANT PROFESSOR RETZER.

41, 42, 43. Research Work.—The laboratory is equipped for investigation of anatomical problems. Suitably trained and endowed persons who have the time to do such work will be encouraged to undertake it. PROFESSOR BENSLEY, ASSOCIATE PROFESSOR HARVEY, AND ASSISTANT PROFESSOR RETZER.

45, 46, 47. Seminar.—A limited number of students may, by arrangement with the Professor of Anatomy, be admitted to a seminar in which subjects of current interest in anatomy will be discussed. $\frac{1}{2}$ Mj. Autumn and Winter, PROFESSORS BENSLEY AND HERRICK, ASSOCIATE PROFESSOR HARVEY, AND ASSISTANT PROFESSOR RETZER.

XXII. THE DEPARTMENT OF ZOÖLOGY

OFFICERS OF INSTRUCTION

FRANK RATTRAY LILLIE, PH.D., Professor of Embryology and Chairman of the Department of Zoölogy.

CHARLES MANNING CHILD, PH.D., Associate Professor of Zoölogy.

WILLIAM LAWRENCE TOWER, S.B., Associate Professor of Zoölogy.

HORATIO HACKETT NEWMAN, PH.D., Associate Professor of Zoölogy.

REUBEN MYRON STRONG PH.D., Instructor in Zoölogy.

VICTOR ERNEST SHELFORD, PH.D., Instructor in Zoölogy.

W. L. BROWN, A.B., Laboratory Assistant.

HERMAN DOUTHITT, A.M., Laboratory Assistant.

JOHN WOOD MACARTHUR, S.B., Laboratory Assistant.

MORRIS MILLER WELLS, S.B., Laboratory Assistant.

GEORGE WILLIAM BARTELMEZ, PH.D., Instructor in Zoölogy (Summer, 1912).

JOSEPH CLARK STEPHENSON, S.B., Assistant in Zoölogy (Summer, 1912).

WARDER CLYDE ALLEE, S.B., Assistant in Zoölogy (Summer, 1912).

SAMUEL WENDELL WILLISTON, M.D., PH.D., Professor of Paleontology.
ELLIOT ROWLAND DOWNING, PH.D., Assistant Professor of Natural Science,
School of Education.

FELLOWS 1912-13

JOSEPH KUMLER BREITENBECKER, A.B. HOMER ALLIN HILL, S.M.
WYMAN R. GREEN, S.M. LIBBIE HENRIETTA HYMAN, S.B.
JOHN GEORGE SINCLAIR, S.B.

INTRODUCTORY

The courses in Zoölogy aim to meet the needs of those students who desire to obtain some knowledge of Zoölogy as part of their general education, those who need work in Zoölogy to satisfy the requirements of other departments, and those who propose to specialize in Zoölogy. The leading purpose of the courses is to present the subject-matter of the science, its guiding ideas, its principal subdivisions, its scope, methods, and history, and its relations to other sciences.

Undergraduate work in Zoölogy.—It is essential that students who propose to specialize in Zoölogy should obtain a broad general scientific foundation, including work in the cognate biological sciences, and a reading knowledge of German and French. More specifically, students specializing in Zoölogy should take 4 or 5 majors in Chemistry, 2 or 3 in Physics, and 1 or 2 in Geology; they should also obtain knowledge of the general principles of microscopical Anatomy, Paleontology, Botany, and Physiology. These courses may be taken concurrently with the work in Zoölogy.

Graduate work in Zoölogy.—Students proposing to undertake graduate work in Zoölogy should have credit for from eight to ten of the undergraduate majors in Zoölogy or their equivalent. They should also be grounded in other sciences as noted above; and a reading knowledge of German and French is required for candidacy for the degree of Doctor of Philosophy. The plan of the graduate courses involves three or four majors of formal courses and three majors or more of seminar courses in addition to research work. For the degree of Doctor of Philosophy the research work will usually extend over a period of three years. For the Master's degree courses 1 and 2, 4, 15, 16, 17, and 20 or their equivalent, eight majors of graduate work, and a dissertation are required.

The Zoölogical Club.—The members of the staff and the advanced students of the department form a club which meets weekly for the presentation of the research work of members of the department, and for review and discussion of important new literature. The meetings are open to all students in the department.

COURSES OF INSTRUCTION

JUNIOR COLLEGE COURSES

1. General Biology.—Lectures and laboratory work constituting an introduction to the general principles and concepts of biology, conducted jointly by the departments of Zoölogy and Botany. Laboratory fee, \$2.50. Mj. Autumn, PROFESSORS COULTER AND LILLIE, DRs. STRONG AND PFEIFFER.

2. General Biology.—Continuation of course 1. Laboratory fee, \$2.50. Mj. Winter, PROFESSORS COULTER AND LILLIE, DRs. STRONG AND PFEIFFER.

3. General Biology.—The zoölogical parts of courses 1 and 2 given as a separate course. DM. Summer, First and Second Terms, ASSOCIATE PROFESSOR NEWMAN.

3A. Elementary Experimental Biology.—A course designed for academic and science students, to illustrate by experiments and demonstrations the general principles of composition, action, development, and evolution of living substance. Materials for experiment are drawn from plants and animals and illustrate principles without regard to taxonomic or morphological relations. Mj. Spring, ASSOCIATE PROFESSOR TOWER AND MR. SINCLAIR.

4. Animal Activities and Relationships.—An elementary course designed to meet the needs of students intending to take up Ecology, Geography, or Geology. It does not duplicate materials presented in other elementary courses in Zoölogy, but covers the elementary aspects of the relations of animals to environment and the principles and methods of classification of animals. Lectures, practice in classification, laboratory work, excursions to the museums, zoölogical gardens, and vacant lots near the University, and two or three optional trips to the country. No zoölogical prerequisites. Mj. Autumn, DR. SHELFORD.

5. Evolution (Introductory Course).—A lecture course dealing with the evidences of organic evolution, human evolution, the history of the evolution idea and its modern applications, the factors of racial descent, the physical basis and the laws of variation and heredity, modern experimental evolution, etc. The course may be taken as an introduction to general science or as a prerequisite to more formal courses in zoölogy (courses 4, 15, or 17). Lectures, 4 hours a week; recitation or quiz one hour a week. Mj. Winter, ASSOCIATE PROFESSOR NEWMAN.

9. Studies of Birds.—A course in Biology with the bird as the type. Adaptive features connected with flight, color, feeding habits, etc. Field and laboratory work devoted primarily to the habits and classification of birds. Lectures, 3 hours a week; laboratory and field work as arranged. Laboratory fee, \$1.25. Mj. Spring; DM. Summer, First Term, DR. STRONG.

11. Invertebrate Zoölogy.—Lectures, laboratory work, and demonstrations. Prerequisite: courses 1 and 2, or equivalent. Laboratory fee, \$2.50. DM. Summer, First Term, MR. STEPHENSON.

12. Vertebrate Zoölogy.—Lectures, laboratory work, and demonstrations. Prerequisite: courses 1 and 2, or equivalent. Laboratory fee, \$2.50. DM. Summer, Second Term, MR. STEPHENSON.

SENIOR COLLEGE COURSES

15. General Zoölogy.—Study of representatives of the lower invertebrate groups, including the anatomy of the adult and the life-history, together with some discussion of the habits and distribution. Prerequisite: courses 1 and 2, or 5. Lectures, laboratory work, and demonstrations. Laboratory fee, \$2.50. Mj. Autumn, ASSOCIATE PROFESSOR NEWMAN.

16. General Zoölogy.—Continuation of course 15. The higher invertebrates, Annelids, Arthropods, Molluscs, and Echinoderms. Prerequisite: course 15. Laboratory fee, \$2.50. Mj. Winter, ASSOCIATE PROFESSOR NEWMAN.

17. General Zoölogy.—Vertebrates. This course may be taken either as continuation of 16, or as first course in General Zoölogy. Prerequisite: courses 1 and 2, 4 or 5. Laboratory fee, \$2.50. Mj. Spring, ASSOCIATE PROFESSOR NEWMAN.

19. Vertebrate Embryology.—An introduction to course 20. Prerequisite: Anatomy 10 and 10A. M. Winter, Second Term, PROFESSOR LILLIE. [Not given in 1913.]

20. Vertebrate Embryology.—Birds and mammals. Lectures, demonstrations, and laboratory work. Prerequisite: Zoölogy 1 and 2, Anatomy 10, and (after 1913) Zoölogy 17 and 19,¹ or their equivalents. Laboratory fee, \$2.50. Mj. or DMj. Spring, PROFESSOR LILLIE AND ASSISTANTS.

¹ Until further notice, these prerequisites will not be required of students seeking the degree of M.D. The medical student will receive a statement from the Medical Dean admitting him to these courses without these prerequisites.

21. Vertebrate Embryology.—Lectures, 3 hours a week; demonstrations and laboratory work, 6 hours a week. Laboratory fee, \$2.50. Mj. Summer, DR. BARTELMIZ.

24. Microscopical Methods and Technique.—The preparation of animal structures for study and the application of histological methods in special problems. Laboratory fee, \$2.50. Prerequisites: courses 1 and 2, and after 1913 courses 15, 16, and 17, or equivalent. Mj. Autumn: DM. Summer, First Term, DR. STRONG.

25. Animal Histology.—A continuation of course 24. Laboratory fee, \$2.50. Mj. Winter, DR. STRONG.

26. Ecology and Behavior.—Animals in relation to environment; facts, principles, and methods of analysis of behavior. Lectures and conferences, 4 hours a week; field and laboratory work, 12 hours a week. Prerequisite: Zoölogy 4, or 1 and 2, or equivalent. Laboratory fee, \$1.25. DM. Summer, First Term, MR. ALLEE. Mj. Autumn, DR. SHELFORD.

27. Animal Response.—Physiology of environic relations; theories of animal behavior. Lectures and conferences; for DM., laboratory work on a selected topic. Desirable antecedent, general physiology (e.g., Botany 3B). Prerequisite: Zoölogy 4, or 26. M. or DM. Winter, First Term, DR. SHELFORD. [Not given in 1912-13.]

28. Animal Geography.—The world and regional aspects of animal behavior and ecology; including animal distribution as related to climate and vegetation. Lectures, conferences, and demonstrations. M. or DM. For DM., additional library or laboratory work. Desirable antecedent, a knowledge of physiography and historical geology (Geology 2). Prerequisite: Zoölogy 4 or 26. Winter, Second Term, DR. SHELFORD. [Not given in 1912-13.]

NOTE.—Courses 26, 27, 28, and 29 are open to students of geography without the stated zoölogical prerequisites on recommendation of a member of that department. Courses 27 and 28 constitute a unit in Winter Quarters and should be elected together.

29. Physiographic Animal Ecology.—The behavior, conditions of existence, and breeding relations within the characteristic animal formations of eastern North America; the relation of these formations to physiographic features and environmental processes, such as erosion, deposition, and plant succession. Lectures, conferences, and field work. Desirable antecedents: an elementary knowledge of physiography (Geology 1) and of plant ecology (Botany 3). Prerequisite: Zoölogy 26. M. or DM. Summer, Second Term, DR. SHELFORD AND MR. ALLEE.

33-35. Advanced Invertebrate Zoölogy.—Laboratory work, assigned reading, and conferences on selected groups of invertebrates. Prerequisite: courses 15, 16 and 17. Mj. or DMj. Laboratory fee, \$2.50. Autumn, Winter, and Spring, ASSOCIATE PROFESSOR CHILD.

36. Advanced Vertebrate Zoölogy.—Lectures and demonstrations on the natural history, evolution, migration, and distribution of vertebrates, living and extinct. Fishes and amphibia. Prerequisite: courses 1 and 2, and 15, 16, and 17. Laboratory fee, \$2.50. Mj. Autumn, PROFESSOR WILLISTON.

37. Advanced Vertebrate Zoölogy.—Lectures and demonstrations on the natural history, evolution, migration, and distribution of vertebrates, reptiles, and birds. Laboratory fee, \$2.50. Mj. Winter, PROFESSOR WILLISTON.

38. Advanced Vertebrate Zoölogy.—Lectures and demonstrations on the natural history, evolution, migration, and distribution of vertebrates, living and extinct. Mammals. Laboratory fee, \$2.50. Mj. Spring, PROFESSOR WILLISTON.

39. Marine Biology, at the Marine Biological Laboratory at Woods Hole, Mass.—Credit is given at the University of Chicago for courses taken at this laboratory. DMj. Summer, PROFESSOR LILLIE.

40. The Teaching of Zoölogy.—This course touches briefly the history of the introduction of science teaching and the significance of the movement, and

discusses present tendencies, courses of study, textbooks, and the principles involved in the selection of subject-matter, its arrangement and presentation. Mj. Autumn, ASSISTANT PROFESSOR DOWNING.

GRADUATE COURSES

45. Physiology of Development.—A consideration of existing data and views as material for a theory of development and heredity. Lectures and laboratory work. The lectures may be taken alone as $\frac{1}{2}$ Mj. Prerequisite: course 20. Mj. or DMj. Autumn, PROFESSOR LILLIE.

46. Organic Evolution.—Lectures, library work, and demonstrations on (1) the evidences of evolution, growth of the evolution idea, modern evolution theories; (2) the factors in evolution; (3) results obtained in experimental evolution. Prerequisite: a general knowledge of biological facts and theories. Mj. or DMj. Winter, ASSOCIATE PROFESSOR TOWER.

47. Physiology of Regulation and Reproduction.—Discussion and analysis of the chief facts and theories of form-regulation. The relation between experimental regulation and reproduction in nature. The conditions which initiate reproduction. The work of the course will consist of lectures, reports, discussions, and quizzes. DM. Summer, First Term; Mj. Spring, ASSOCIATE PROFESSOR CHILD.

48. Cytology.—A consideration of the more important facts, problems, and theories of cytology. Among the subjects considered are: morphology and physiology of the cell, cell-division, the cell and the organism in growth, reproduction and regulation, the various methods of cytological research, their objects and their value. The work of the course consists of lectures, reports, discussions, and quizzes. Mj. Spring, ASSOCIATE PROFESSOR CHILD. [Not given in 1913.]

52. Topics in Ecology.—Students will be assigned topics dealing with the environmental relations of animals. The work will be largely individual. A desirable antecedent to research in behavior and ecology. Prerequisite: knowledge of the principles of ecology. Field, laboratory, and library work as arranged; conference, 2 hours a week. Mj. or DMj. Spring and Summer, DR. SHELFORD.

NOTE.—The course is often conducted in co-operation with Botany 38, as a seminar in General Ecology.

SEMINAR COURSES

60. Problems of Fertilization (Seminar).—A consideration of the historical development and present status of the problems of fertilization. Prerequisite: courses 45, 46, and either 47 or 48. Mj. Spring, PROFESSOR LILLIE.

61. Bionomic Problems.—In 1913 the problems of evolution with reference to their relation to external factors, to distribution, and to the interrelation of organisms will be considered. Prerequisite: Zoölogy 45, 46, and either 47 or 48. Mj. or DMj. Autumn, ASSOCIATE PROFESSOR TOWER.

61A. Genetics.—The problems of heredity in relation to genetics, to plant and animal breeding, and to eugenics. Prerequisites same as for 61. Mj. or DMj. Autumn, 1912, ASSOCIATE PROFESSOR TOWER.

63. Organic Correlation.—The problem of reproduction in organisms. A study of the facts and theories concerning the various methods of reproduction in organisms; the effect of physiological and physical isolation of parts in nature and experiment; the germ plasm theory in relation to the data of observation and experiments. Special topics will be assigned to each student for report and discussion. Prerequisite: courses 45, 46, and 47. Mj. Winter, ASSOCIATE PROFESSOR CHILD.

RESEARCH COURSES

70. Zoölogical Problems.—Research at the Marine Biological Laboratory, Woods Hole, Mass. Prerequisite: such of the elementary courses as are essential to the special topic undertaken. 2 or 3 Mjs. Summer, PROFESSOR LILLIE.

71. Zoölogical Problems.—Research. Laboratory fee, \$2.50. DMj. Summer, ASSOCIATE PROFESSORS CHILD, TOWER, NEWMAN, AND OTHERS.

72, 73, 74. Zoölogical Problems.—Research work. For graduate students. Prerequisite: training essential to the special topic undertaken. Laboratory fee, \$2.50. DMj. Autumn, Winter, and Spring, PROFESSOR LILLIE, ASSOCIATE PROFESSORS CHILD, TOWER, NEWMAN, AND OTHERS.

75-78. Master's Theses.—Each quarter.

Zoölogy.—DR. STRONG.

Behavior and Ecology.—DR. SHELFORD.

II. DEPARTMENT OF PHYSIOLOGY

(AT THE UNIVERSITY, DEPARTMENT XXIV, INCLUDING THE SUBDEPARTMENTS OF PHYSIOLOGY, PHYSIOLOGICAL CHEMISTRY, PHARMACOLOGY, AND EXPERIMENTAL THERAPEUTICS)

OFFICERS OF INSTRUCTION

ALBERT PRESCOTT MATHEWS, PH.D., Professor of Physiological Chemistry.

ANTON JULIUS CARLSON, PH.D., Associate Professor of Physiology.

DAVID JUDSON LINGLE, PH.D., Assistant Professor of Physiology.

SAMUEL ALEXANDER MATTHEWS, M.D., Assistant Professor of Experimental Therapeutics.

ALBERT WOELFEL, M.D., Instructor in Physiology.

ARNO BENEDICT LUCKHARDT, PH.D., M.D., Associate in Philosophy.

FRED CONRAD KOCH, PH.D., Assistant in Physiological Chemistry.

HERBERT OTTO LUSKY, S.B., Assistant in Physiology.

OLE O. STOLAND, S.M., Assistant in Physiology.

FRED MILLER DRENNAN, S.M., Assistant in Physiology.

CHARLES GEORGE MCARTHUR, S.B., Assistant in Pharmacology.

THOMAS CHARLES GALLOWAY, S.B., Assistant in Pharmacology.

MATHILDE KOCH, S.B., Research Assistant in Physiological Chemistry.

AUGUST JOHNSON, Mechanical Assistant.

FRANK CHRISTIAN BECHT, PH.D., Assistant Professor of Physiology, University of Illinois (Summer Quarter, 1912).

FELLOWS, 1912-13

ALBERT GARLAND HOGAN, S.M.

CONRAD JACOBSON, PH.D.

INTRODUCTORY

The courses of the Department of Physiology are arranged for three classes of students:

1. Junior and Senior College students who wish to acquire a knowledge of the structure and functions of the human body. For such students a three-major course is given—courses 1, 2, and 3 Introductory Physiology. In order to make it accessible to a large number of students no prerequisites are demanded.

2. Students wishing to specialize in physiology, physiological chemistry, or pharmacology, or students of other biological sciences who wish to take minor work in physiology.

3. Students of medicine. For all courses except 1 and 2, General Biology 1 and 2, or an equivalent are prerequisite. For each major or double minor course requiring laboratory work the laboratory fee is \$2.50.

THE BACHELOR'S DEGREE

Senior College students wishing to take their S.B. degree in Physiology should take courses 1, 2, 12, 13, 14, 24, 25, 26; or in lieu of the last three courses, 19 and 20.

THE MASTER'S DEGREE

The requirements for the Master's degree, if all the work is taken in this department, are: (a) Research 3 Mjs. (courses 42, 43, or 44). (b) 5 Mjs. from the graduate or Senior College courses; (c) thesis. The Senior College courses that may be counted toward the Master's degree are 12, 13, 14, 19, 20, 21, 24, 25, 26, 32.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Courses 12, 13, 14, 24, 25, 26, and 37, or their equivalent, are required of all candidates for the Doctor's degree, with Physiology as the major subject. The further selection of courses depends on whether Physiology or Physiological Chemistry is the principal subject, and is arranged in each case by consultation.

COURSES OF INSTRUCTION

JUNIOR COLLEGE COURSES

1, 2, and 3. Introductory Physiology.—These courses are intended to familiarize the student with the fundamental facts concerning the structure and functions of the human body. Students are urged to take all three courses. Those who wish to get the most possible out of the courses are strongly urged to acquire some chemical knowledge before beginning the work. As the accommodations are limited, preference in registration will be given to those students who will arrange their work so as to be able to take both 1, 2, and 3.

(1) Physiology of Blood, Respiration, Digestion, Secretion, and Absorption. Mj. Autumn. Lectures: three a week; laboratory: 4 hours a week. ASSISTANT PROFESSOR LINGLE AND MR. LUSSKY. Repeated, Winter, ASSISTANT PROFESSOR LINGLE.

(2) Physiology of Circulation, Muscle, Peripheral Nerves, Animal Heat, and Excretion. A continuation of course 1. Mj. Winter. Lectures: three a week; laboratory: 4 hours a week. ASSISTANT PROFESSOR LINGLE AND MR. LUSSKY. Repeated, Spring.

(3) Physiology of Brain and Senses. Mj. Spring. Repeated in Autumn. Lectures, three a week; laboratory, 4 hours a week, ASSISTANT PROFESSOR LINGLE AND MR. LUSSKY.

(4) Lectures and laboratory work on selected topics of human physiology, especially adapted for teachers. Mj. Summer, ASSISTANT PROFESSOR BECHT AND MR. DRENNAN.

SENIOR COLLEGE COURSES

†12. Physiology of Blood, Circulation, and Respiration.—Mj. Spring. Prerequisite: Physiological Chemistry. Laboratory fee, \$2.50. Lectures and recitation: M., Tu., W., 9:30–10:30, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL AND LUCKHARDT. Laboratory: Sec. A.—Th., F., 2:00–5:00; Sec. B.—Th., F., 8:30–11:30, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL AND LUCKHARDT, MR. DRENNAN, AND MR. STOLAND.

†13. Physiology of Digestion, Metabolism, Absorption, Secretion, Muscles, and Heat.—1 Mj. Autumn. Prerequisite: Physiology 12. Laboratory fee, \$2.50. Lectures and recitations: 3 hours a week. Laboratory: 6 hours a week, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL, AND LUCKHARDT.

†14. Physiology of the Nervous System and the Senses.—Mj. Winter. Prerequisite: Anatomy 17. Laboratory fee, \$2.50. Lectures: M., Tu., W.,

† One of the courses 12, 13, or 14 will be repeated in the Summer Quarter. The choice will depend upon the requirements of the majority of the applicants.

11:00-12:00. Laboratory: Sec. A.—Th., F., 10:00-1:00; Sec. B.—Th., F., 2:00-5:00, ASSOCIATE PROFESSOR CARLSON, DRs. WOELFEL AND LUCKHARDT, MR. DRENNAN, AND MR. STOLAND.

15. Special Physiology of Mammals.—Including the repetition of experiments not given in the general courses. Prerequisite: Physiology 12, 13, or 14 or equivalent. Laboratory fee, \$1.25. $\frac{1}{2}$ Mj. Summer and Autumn, Saturdays, 8:00-12:30, DR. LUCKHARDT.

17. Review Course in Physiology.—A review course in Physiology, mainly in the laboratory, designed especially for students entering with advanced standing from other medical schools. Mj. Summer, ASSISTANT PROFESSOR BECHT AND MR. STOLAND.

19. Physiological Chemistry.—Chemistry of carbohydrates, fats, and proteins, and the general chemistry of the cell. Prerequisite: General Chemistry and Qualitative Analysis; Elementary Organic Chemistry. Quantitative Analysis is strongly recommended. Laboratory fee, \$2.50. 1 Mj. Winter. Lectures: M., Tu., Laboratory: Sec. A.—M., Tu., 9:30-12:30; Sec. B.—Th., F., 9:30-12:30. Recitation: F., 8-30. PROFESSOR MATHEWS AND DR. KOCH.

20. Physiological Chemistry, Chemistry of Digestion, Metabolism, and Excretion.—Prerequisite: 19. Lectures: M., Tu., F., 8:30-9:30. Laboratory hours as in 19. Laboratory fee, \$2.50. 1 Mj. Autumn, PROFESSOR MATHEWS AND DR. KOCH.

21. Pharmacology.—Prerequisites: Physiology 12, 13, 14, 19, and 20. Laboratory fee, \$2.50. 1 Mj. Spring. Lectures: M., W., 11:00-12:00. recitations: Tu., Th., 11:00-12:00. Laboratory: Sec. A.—hours to be arranged. Sec. B.—M., W., 2:00-5:00. Recitations: one a week; laboratory: 7 hours a week. Spring, ASSISTANT PROFESSOR S. A. MATHEWS AND MR. McARTHUR. Repeated in Summer, DR. F. C. McLEAN AND MR. McARTHUR.

PRIMARILY GRADUATE COURSES

16. Advanced Physiology of the Central Nervous System.—Prerequisite: Physiology 14. Mj. Laboratory fee, \$2.50. Spring, ASSOCIATE PROFESSOR CARLSON AND MR. LUSSKY.

18. General and Comparative Physiology.—Laboratory fee, \$2.50. Mj; Spring, ASSISTANT PROFESSOR LINGLE.

23. Pharmacology of the Circulation.—Lectures, one a week; recitations, two a week; laboratory, 5 hours a week. Laboratory fee, \$1.25. M. Summer, ASSISTANT PROFESSOR F. C. McLEAN

24. Physiological Chemistry.—Chemistry of the cell constituents: lipoids, carbohydrates, proteins, nucleins. For graduate students and those taking a major degree in physiological chemistry or physiology. Prerequisites the same as for 19. Fee, \$2.50. Mj. Autumn, PROFESSOR MATHEWS.

25. Physiological Chemistry (Continuation of 24).—Digestion, absorption, chemistry of tissues. Mj. Winter, PROFESSOR MATHEWS.

26. Physiological Chemistry (Continuation of 25).—Metabolism, nutrition, excretion. Mj. Spring, PROFESSOR MATHEWS.

31. Special Physiology of the Circulation.—Laboratory fee, \$2.50. Mj. Autumn, ASSOCIATE PROFESSOR CARLSON AND MR. LUSSKY.

32. Special Physiology of the Glands of Internal Secretion.—Laboratory fee, \$2.50. Mj. Winter, ASSOCIATE PROFESSOR CARLSON AND MR. LUSSKY.

37. Methods of Quantitative Analysis in Physiological Chemistry as Applied to Plant and Animal Tissues.—Mj. Winter, DR. F. C. KOCH AND MISS KOCH.

40. Seminar in Biochemistry, Pharmacology, and Experimental Therapeutics.—Weekly. PROFESSOR MATHEWS, ASSISTANT PROFESSOR S. A. MATHEWS, DR. F. C. KOCH, AND OTHER MEMBERS OF THE DEPARTMENT.

41. Seminar in Physiology.—Fortnightly. ASSOCIATE PROFESSOR CARLSON, ASSISTANT PROFESSOR LINGLE, DRs. WOELFEL AND LUCKHARDT.

42. Research Work in Physiological Chemistry.—Mj. or DMj. Each quarter. PROFESSOR MATHEWS AND DR. KOCH.

43. Research Work in Pharmacology.—Mj. or DMj. Each quarter. PROFESSOR MATHEWS AND ASSISTANT PROFESSOR MATTHEWS.

44. Research Work in Physiology.—Mj. or DMj. Each quarter. ASSOCIATE PROFESSOR CARLSON AND OTHERS.

45. Research Work in Experimental Therapeutics.—Mj. or DMj. Each quarter. ASSISTANT PROFESSOR S. A. MATTHEWS.

51. General and Comparative Physiology at the Marine Laboratory, at Woods Hole, Mass. Credit is given by the University of Chicago for courses taken at this laboratory. DMj. Summer.

IA. THE DEPARTMENT OF PSYCHOLOGY

OFFICERS OF INSTRUCTION

JAMES ROWLAND ANGELL, A.M., Professor and Head of the Department of Psychology; Director of the Psychological Laboratory.

HARVEY CARR, PH.D., Assistant Professor of Experimental Psychology.

JOSEPH WANTON HAYES, PH.D., Instructor in Psychology.

HENRY FOSTER ADAMS, PH.D., Assistant in Psychology.

INTRODUCTORY

The courses in the Department are planned with three purposes in view: (1) to meet the needs of undergraduate students who desire an intelligent acquaintance with the general principles of Psychology and their bearing upon the larger social and scientific interests of modern life; (2) to afford adequate discipline for students who wish to employ Psychology as a basis for higher work in philosophy, education, and the social sciences; (3) to furnish a sound and symmetrical training for teachers, investigators, and specialists in the various branches of psychological science.

The importance to the physician of a knowledge of modern scientific Psychology, and the great utility of such knowledge in medical practice becomes daily more evident. The following courses are offered as adapted to the needs of medical students and practitioners:

COURSES OF INSTRUCTION

1. **Elementary Psychology.**—An introduction to the study of general psychology from the modern point of view. The course is required for the S.B. degree and is given every quarter. It is prerequisite for all other courses in psychology. Equivalent work done elsewhere will be accepted in lieu of this course as a preparation for more advanced courses. Several sections are often given in one quarter. See Quarterly Announcements for hours and instructors.

2, 3, 4. **Experimental Psychology.**—Lectures and laboratory work. The most important methods and results of experimental psychology will be studied. The course may be entered in any quarter, but the Department recommends the following of the numerical order of the courses where possible. 3 Mjs. Autumn, Winter, and Spring. Lectures: 2:00-3:00; laboratory: 2:00-4:00. Lectures and laboratory work occur on different days. ASSISTANT PROFESSOR CARR.

Course 2 will be devoted to the study of visual sensations, introduced by a general presentation of experimental methods. Autumn. Course 3 will be devoted to the study of cutaneous, kinaesthetic, gustatory, and auditory sensations. Winter. Course 4 will consider the application of experimental methods to the more complex processes of consciousness, e.g., attention, emotion, and volition. Spring Quarter.

10. Experimental Comparative Psychology.—Lectures and laboratory work in the study of animal mind. Prerequisite: one major of experimental psychology, or an equivalent in biological or physiological work. Mj. Spring. Hours to be arranged with instructor. ASSISTANT PROFESSOR CARR.

6. General Methods in Psychology.—This course is intended for students who do not plan to specialize in psychology, but who desire an acquaintance with psychological methods beyond that furnished by the ordinary introductory course. The various fields of psychology will be discussed and their application and technique will be illustrated as far as possible with apparatus, lantern slides, etc.

III. DEPARTMENT OF CHEMISTRY, MATERIA MEDICA, AND TOXICOLOGY*†

(INCLUDING MEDICAL PHARMACY; AND COURSES IN DEPARTMENT XX, CHEMISTRY, AT THE UNIVERSITY OF CHICAGO)

Department of Chemistry, Toxicology, Materia Medica, and Medical Pharmacy at Rush Medical College

OFFICERS OF INSTRUCTION

At Rush Medical College

WALTER STANLEY HAINES, A.M., M.D., Professor and Head of the Department.

JEROME HENRY SALISBURY, A.M., M.D., Assistant Professor.

Department of Chemistry, University of Chicago

OFFICERS OF INSTRUCTION

At The University of Chicago

JOHN ULRIC NEF, PH.D., Professor and Head of the Department of Chemistry.

JULIUS STIEGLITZ, PH.D., Sc.D., Professor of Chemistry and Director of Analytical Chemistry.

HERBERT NEWBY MCCOY, PH.D., Professor of Chemistry.

WILLIAM DRAPER HARKINS, PH.D., Assistant Professor of Chemistry.

HERMANN IRVING SCHLESINGER, PH.D., Assistant Professor of Chemistry.

EDITH ETHEL BARNARD, PH.D., Instructor in Chemistry.

ERNEST ANDERSON, PH.D., Research Instructor in Chemistry.

LEMUEL CHARLES RAIFORD, PH.D., Instructor in Chemistry.

ETHEL MARY TERRY, S.B., Associate in Chemistry.

ARTHUR B. CARTER, PH.C., Curator.

CHARLES HERMAN VIOL, S.B., Assistant in Physical Chemistry.

HANOR A. WEBB, A.B., S.M., Assistant in General Chemistry.

GEORGE OLIVER CURME, JR., S.B., Assistant in Organic Chemistry.

LORAN OGDEN POTTER, A.M., Assistant in General Chemistry.

PAUL NICHOLAS LEECH, S.M., Research Assistant.

WILLIAM HENRY KUH, S.B., Assistant in Quantitative Analysis.

RAYMOND DAVID MULLINIX, Lecture Assistant.

WALTER STANLEY HAINES, A.M., M.D., Professorial Lecturer on Toxicology.

WILLIAM DRAPER HARKINS, PH.D., Professor and Head of the Department of Chemistry, University of Montana (Summer, 1912).

* For courses in Physiological Chemistry see the Department of Physiology.

† The courses in Physics recommended to undergraduate students preparing to study medicine are the following courses offered in the Department of Physics.

FELLOWS, 1912-13

CLYDE COLEMAN, A.B., A.M.
 JOHN WILLIAM EDWARD GLATTFELDT, S.B., S.M.
 OSCAR FRED HEDENBURG, A.B.
 ALBERT GARLAND HOGAN, A.B., S.B.
 HARRY MERRIL PAINE, S.B.
 PAUL DAVID POTTER, A.B., A.M.
 JAMES KUHN SENIOR, A.B.
 CLARE CRISSMAN TODD, S.B.
 ISABELLA MARION VOSBURG, A.B.
 JOSEPH ZAVODSKY, S.B.

COURSES OF INSTRUCTION IN THE DEPARTMENT OF PHYSICS

[Courses 1, 2, 3, and 4 in Physics, or a full equivalent, are required for admission to Rush Medical College, and courses 1 and 2 prerequisite for the courses in Physics are fully described in the Circular of Information of the Colleges, University of Chicago, which may be had on application.]

JUNIOR COLLEGE COURSES

1. Elementary Physics.—A first course in the elements of Physics designed primarily for students who do not present entrance Physics. Mj. Autumn. Class-work: M., Tu., W., 11:00-12:00; Laboratory: Th., F., 11:00-1:00, ASSOCIATE PROFESSOR MANN.

2. Elementary Physics.—A continuation of the preceding course, covering the subjects of electricity, sound, and light. Mj. Winter. Class work: M., Tu., W., 11:00-12:00; laboratory: Th., F., 11:00-1:00, ASSOCIATE PROFESSOR MANN.

3. Mechanics, Molecular Physics, and Heat.—A general college course in mechanics, molecular physics, and heat, presented mainly from the experimental standpoint. 10 hours a week. Prerequisite: Entrance Physics or Physics 1 and 2. Mj. Summer: 8:00-10:00. Sec. A.—7:00-9:00, DR. LEMON. Sec. B.—11:00-1:00, MR. LEE. Autumn Sec. A.—8:30-10:30, ASSOCIATE PROFESSOR KINSLEY. Sec. B.—11:30-1:00, MR. LEE. Sec. C.—2:00-4:00, DR. LEMON. Winter, 8:30-10:30, ASSOCIATE PROFESSOR MANN. Spring, 8:30-10:30, ASSOCIATE PROFESSOR MANN.

4. Electricity and Light.—A general college course in electricity, sound, and light, presented mainly from the experimental standpoint, and involving the performance of eighteen laboratory exercises in electricity, four in sound, and six in light. Prerequisite: Physics 3. Mj. Summer, Sec. A.—10:30-12:30, DR. LEMON. Sec. B.—1:30-3:30, MR. LEE. Mj. Winter, Sec. A.—ASSOCIATE PROFESSOR KINSLEY. Sec. B.—2:00-4:00, DR. LEMON. Mj. Spring, 11:00-1:00, ASSOCIATE PROFESSOR KINSLEY.

5. Lecture Demonstration Course.—A course of lectures, demonstrations, and recitations supplementing course 3 and 4 and completing a year's work in college Physics. Recent discoveries and development in Physics are given especial attention. 5 hours a week. Prerequisite: Physics 3 and 4. Mj. Summer, 10:30; Spring, 9:30, DR. LEMON.

INTRODUCTORY

In this department are offered (1) courses which are suited for providing the preparation in the science of Chemistry that is indispensable to the study and practice of medicine; (2) courses which afford the student an opportunity for acquiring a more thorough and complete preparation for following intelligently the rapid advances in modern physiology and other medical subjects; and (3) courses which are indispensable for those who intend to assist in this advance by devoting themselves in part or exclusively to research in medical subjects, after completing their medical course.

REQUIREMENTS AND ELECTIVES IN CHEMISTRY

General Organic Chemistry and Qualitative Analysis are now a prerequisite to the medical courses proper. The necessary knowledge of the subject can be obtained from Chemistry 1, 2, 3, 4, and 6, or Admission Chemistry and 2S, 3S, 4, and 6.

Organic Chemistry, 33 and 34 (2 Mjs.), Summer Quarter, may be substituted for course 4.

Students who are preparing for the study of Medicine, and who are candidates for a Bachelor's degree in the University of Chicago, are strongly recommended to take at least two majors more of Chemistry, viz., Quantitative Analysis 8 (1 Mj.), and Physical Chemistry 60 or 61.

Candidates for a Bachelor's degree who expect to do research work in Physiology or allied medical subjects may with advantage elect further courses from the following: Organic Chemistry 30, 31, 32; Physical Chemistry 62; Special Methods of Quantitative Analysis 13-19.

COURSES OF INSTRUCTION

PRIMARILY FOR THE JUNIOR COLLEGES

1. Elementary General Chemistry, Inorganic, I.—Prerequisite: Preparatory Physics. DM. Summer, First Term. Classroom: 6 hours a week; laboratory: 12 hours a week, 1:30-4:30, DR. RAIFORD. Mj. Autumn. Classroom: 3 hours a week, 12:00; Laboratory: 6 hours a week; 2 sections: ASSISTANT PROFESSOR HARKINS AND DR. RAIFORD.

2. General Chemistry, Inorganic, II.—Continuation of course 1. Hours as in course 1. DM. Summer, Second Term, DR. RAIFORD. Mj. Winter, ASSISTANT PROFESSOR HARKINS.

3. General Chemistry, Inorganic, III.—Continuation of course 2. Hours as in course 1. Mj. Spring. ASSISTANT PROFESSOR HARKINS.

1, 2, 3 are consecutive courses. Separate credit is given for each, but students are not advised to take one course only. The aim of the continuous courses 1, 2, 3 will be to give a definite idea of the fundamental principles of Chemistry. The conception of chemical equilibrium and the modern theory of solutions are freely used. The lectures will be experimental to a considerable extent. The courses are designed to meet the wants, not only of those who wish to go deeper into Chemistry, but of all who wish to study the science as part of a liberal education. The lectures and classroom work of 1, 2, and 3 may be taken by graduate students without the laboratory work or laboratory fee.

2S. General Chemistry, Inorganic.—Special course following Preparatory Chemistry. Prerequisite: Preparatory Chemistry and Physics. 1 unit each. DM. Summer, First Term. Classroom: 6 hours a week, 10:30; laboratory: 12 hours a week, 1:30-4:30, ASSISTANT PROFESSOR HARKINS. Mj. Autumn. Classroom: 3 hours a week, 8:30; laboratory: 6 hours a week, PROFESSOR MCCOY.

3S. General Chemistry, Inorganic.—Continuation of course 2S. Hours as in 2S. DM. Summer, Second Term, ASSISTANT PROFESSOR HARKINS. Mj. Winter, DR. RAIFORD.

Course 2S in the autumn is especially designed for students offering preparatory Chemistry. Course 2 in the winter is a continuation of course 1, but may be entered by those having credit for admission chemistry.

4. Elementary Organic Chemistry.—Prerequisite: course 3 or 3S General Chemistry. Mj. Classroom: 3 hours a week, 8:30; laboratory work: 6 hours a week. Autumn, PROFESSOR STIEGLITZ.

PRIMARILY FOR THE SENIOR COLLEGES

NOTE.—Courses 6, 7, 8, 9, 10, 11, and 13 are given in the analytical laboratories. The laboratories are open from 8:00 A.M. to 6:00 P.M. (Saturdays only to 1:00 P.M.). The hours of instruction provide for morning and afternoon sections and will be posted in the laboratory.

Courses 8 and 9 will count toward a Master's or the Doctor's degree when Chemistry is the *secondary* subject.

6. Qualitative Analysis.—Introductory course. Prerequisite: course 3 or 3S. Mj. Classroom: 2 hours a week; laboratory: 8 hours a week; lectures, 2:00. Summer and Spring, PROFESSOR STIEGLITZ AND MISS TERRY; Autumn, ASSISTANT PROFESSOR SCHLESINGER; Winter, MISS TERRY.

7. Qualitative Analysis.—Continuation of course 6. Hours as in 6. Mj. or DM. Summer, MISS TERRY; Autumn and Winter, ASSISTANT PROFESSOR SCHLESINGER; Spring, MISS TERRY.

Courses 6, 7, and 10 form a continuous course, which may be begun in any quarter. The aim of courses 6, 7, and 10 will be to train the student to do intelligent analytical work and to apply his knowledge of General and Physical Chemistry.

8. Quantitative Analysis.—Introductory course. Chiefly laboratory work in Gravimetric and Volumetric Analysis. Prerequisite: Qualitative Analysis (courses 6 and 7). Medical students will be admitted to the course after having taken course 6. Mj. or DM. Laboratory: 8 or 16 hours a week; lecture: 1 hour. Summer, First Term, Autumn, and Spring, DR. BARNARD; Summer, Second Term, and Winter, PROFESSOR STIEGLITZ.

33. General Organic Chemistry.—Fatty and aromatic series. Prerequisite: General Chemistry and Qualitative Analysis. Lectures: 5 hours a week. Mj. Summer, 8:30, DR. ANDERSON.

34. Elementary Organic Preparations.—Laboratory work: 1:30–4:30, 9 hours a week. This course is arranged to accompany the lectures of course 17. It may be taken without the lectures by students who have had Organic Chemistry. Prerequisite: as in course 33. $\frac{1}{2}$ Mj. or Mj. Summer, DR. ANDERSON.

85. The Chemistry of Drugs.—A course dealing with the physical and chemical properties of the chief medicinal drugs and their most important remedial preparations. 3 hours per week. $\frac{1}{2}$ Mj. Spring, Tu., Th., F., 4:00, PROFESSOR HAINES.

Numerous other courses are offered in the various departments of Chemistry which are fully described in the Circular of Information for the Colleges and of the Graduate Schools. Copies of these circulars may be had on application.

INSTRUCTION AT RUSH MEDICAL COLLEGE

51. Toxicology.—An advanced conference and laboratory course, dealing with the physical and chemical properties of the more important poisons, their effects and treatment, and their detection. Conferences and laboratory: Hours to be arranged, 60 hours. .8Mj. PROFESSOR HAINES.

52. Clinical Chemistry.—A lecture, conference, and laboratory course dealing with the urine, gastric contents, and other animal fluids, in their relation to disease, and embracing the composition of these fluids, the chemical and microscopical detection of abnormal constituents, and the interpretation of their clinical significance. Lectures, conferences, and laboratory: Tu., 11:00; Th., F., 10:00–12:00. 60 hours. .8Mj. PROFESSOR HAINES AND ASSISTANT PROFESSOR SALISBURY. [Not given in 1912–13.]

Course 52 may be counted as a part of the five and one-half required majors in Medicine.

53. Materia Medica, Medical Pharmacy, and Toxicology.—A lecture and conference course, dealing with the physical, chemical, and pharmaceutical

properties of medicinal agents and their toxicology. Lectures and conferences: M., Tu., Th., 9 00. 48 hours. .8Mj. Autumn, Tu., W., F., Sat., Spring, PROFESSOR HAINES.

53A. Materia Medica and Medical Pharmacy.—A laboratory course supplementary to course 53. Tu., W., F., Sat., 10:00–11:00. 48 hours. .4Mj. Autumn and Spring, PROFESSOR HAINES AND ASSISTANTS.

V. DEPARTMENT OF THERAPEUTICS AND PREVENTIVE MEDICINE

OFFICERS OF INSTRUCTION

WALTER STANLEY HAINES, A.M., M.D., *Ingals* Professor and Head of the Department of Therapeutics.

RALPH WALDO WEBSTER, M.D., Ph.D., Assistant Professor of Pharmacological Therapeutics.

HUGO AD OLDENBORG, G.D., Assistant Professor of Kinesitherapy.

ROBERT JAMES GAY, M.D., DANIEL ROBERTS BROWER, M.D., Instructors.

CHARLES OTTO CARLSTROM, G.D., Assistant in Kinesitherapy.

INTRODUCTORY

The course in Hygiene and Sanitation is given to the Senior class and consists of lectures and conferences.

A course in the principles of Therapeutics is given to the Junior class three times a week throughout the Winter Quarter, by means of lectures and conferences. One of these hours is devoted chiefly to instruction in prescription-writing from a therapeutic standpoint. The work is continued during the Spring Quarter by means of a conference course with more special reference to individual diseases.

A course in Practical Therapeutics is offered in the Junior year in which the student is personally taught manipulative methods, including Massage, Electricity, Hydrotherapy, etc., and the practical care of the sick.

It is intended that this department shall supplement the work of the Department of Medicine by dealing more in detail with the technique of treatment.

COURSES OF INSTRUCTION

JUNIOR YEAR

1. Therapeutics.—A lecture and prescription-writing course. Prerequisite: *Materia Medica* (Course III–53). Lectures: M., F., 8:00; prescription-writing: W., 8:00. .6 Mj. Winter, ASSISTANT PROFESSOR WEBSTER AND ASSOCIATE PROFESSOR TIEKEN.

2. Therapeutics.—A conference course on the therapeutic management of special diseases including prescription-writing. .6Mj. Summer and Spring, M., W., F., 8:00, ASSOCIATE PROFESSOR TIEKEN AND DR. GAY.

3. Practical Therapeutics.—A laboratory and practical course in massage hydrotherapy, aerotherapy, electrotherapy, cooking for the sick, and the general management of the sick, with clinical application. Given to the class in sections. Tu., Th., 4:00–6:00 .4Mj. Autumn and Winter, ASSISTANT PROFESSOR OLDENBORG, DR. BROWER, AND ———.

SENIOR YEAR

5. **Hygiene and Sanitation.**—A lecture and conference course. .4Mj. Autumn, Tu., Th., 8:00, DR. GAY.

7. **Kinesitherapy.**—A practical course in Kinesitherapy, with demonstrations, including massage, Swedish movements, and Frenkel re-educative exercises, the students themselves having an opportunity to practice these forms of treatment on patients sent from the other departments of the dispensary. .6Mj. Autumn, Winter, and Spring. Hours to be announced, ASSISTANT PROFESSOR HUGO AD OLDENBORG, AND MR. CARLSTROM.

VI. THE DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

(AT THE UNIVERSITY DEPARTMENT XXVIII)

OFFICERS OF INSTRUCTION

LUDVIG HEKTOEN, M.D., Professor of Pathology, and Head of the Department of Pathology and Bacteriology.

EDWIN OAKES JORDAN, PH.D., Professor of Bacteriology.

HARRY GIDEON WELLS, PH.D., M.D., Associate Professor of Pathology.

NORMAN MACLEOD HARRIS, M.B., Assistant Professor of Bacteriology.

PRESTON KYES, A.M., M.D., Assistant Professor of Experimental Pathology.

EDWARD VAIL LAPHAM BROWN, S.B., M.D., Instructor in the Pathology of the Eye.

PAUL GUSTAV HEINEMANN, PH.D., Associate in Bacteriology.

ARTHUR HANDLEY HIXSON, S.B., Assistant in Bacteriology.

GLEASON CHANDLER LAKE, S.B., Laboratory Assistant in Pathology.

ESMOND RAY LONG, A.B., Research Assistant in Chemical Pathology.

HARRIET FAY HOLMES, A.B., Special Instructor in Pathological Technique.

AT RUSH MEDICAL COLLEGE

EDWIN RAYMOND LE COUNT, M.D., Professor of Pathology.

GEORGE HOWITT WEAVER, M.D., Associate Professor of Pathology.

DAVID JOHN DAVIS, M.D., Assistant Professor of Pathology.

GEORGE FREDERICK DICK, M.D., Instructor in Pathology.

GLADYS ROWENA HENRY, A.B., M.D., Assistant in Pathology.

ALBERT MONTAGUE MOODY, M.D., Fellow in Pathology.

FELLOWS AT THE UNIVERSITY OF CHICAGO

1912-13

KENNETH NOEL ATKINS, PH.B., A.M. (Bacteriology).

GEORGE LESTER KITE, A.B., M.D. (Pathology).

INTRODUCTORY

The Department offers the required courses in Pathology and Bacteriology in the curriculum of Medicine, as well as advanced courses for those desiring a more extended knowledge of the subjects, and for those wishing to qualify themselves for research.

At the University of Chicago the Department possesses all necessary equipment for pathologic and bacteriologic work. There is access to a good museum for teaching purposes, and to complete files of the important serial publications.

For each major or double minor course requiring laboratory work the laboratory fee is \$2.50.

The Pathological Laboratory of Rush Medical College possesses all necessary equipment for pathologic and bacteriologic work. The laboratory has a good museum. Adjacent hospitals furnish abundant material for demonstration, advanced work, and research.

COURSES OF INSTRUCTION

PATHOLOGY

SENIOR COLLEGE COURSES

1. General Pathology and Pathological Histology.—A practical laboratory course in General Pathology, supplemented by experiment, by the study of fresh and museum specimens, and by recitations in General Pathology. Prerequisite: Histology, Bacteriology, General Physiology, Human Anatomy, and Physiological Chemistry. 108 hours. 1 Mj. Winter. Recitations: Three hours a week; laboratory: Six hours a week. ASSOCIATE PROFESSOR WELLS AND ASSISTANTS.

2. The Infective Granulomas and Tumors.—Spring Quarter. 108 hours. Mj. ASSOCIATE PROFESSOR WELLS AND ASSISTANTS. (A and B will be given in the Summer Quarter as DMj.)

GRADUATE COURSES

3. Advanced Pathology.—Open to a limited number of students who have credit in General Pathology. Pathological technique and autopsies. Weekly conferences. Hours arranged for each student. Mj. Autumn, Winter, and Spring, ASSOCIATE PROFESSOR WELLS.

4. Research in Pathology.—Open to a limited number of specially qualified students and graduates in medicine. Hours to be arranged for each student. Mj. or DMj. Each quarter, PROFESSOR HEKTOEN AND ASSOCIATE PROFESSOR WELLS.

6. Pathology of the Eye.—Special advanced Pathology for practicing physicians and advanced students. Hours to be arranged. DM. Summer, First Term, DR. BROWN.

7A. Research in Experimental Pathology.—Open to a restricted number of qualified investigators. Mj. or DMj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR KYES.

7B. Seminar in Experimental Pathology.—Conferences to parallel the current investigation in the laboratory of Experimental Pathology. Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR KYES.

8. Pathological Technique.—Open to a limited number of students. Mj. Autumn, MISS HOLMES.

BACTERIOLOGY

SENIOR COLLEGE COURSES

21. Pathogenic Bacteria.—General aspects of Bacteriology, designed primarily for medical students. 120 hours. 1½ Mjs. Summer, 1:30–4:30, ASSISTANT PROFESSOR HARRIS AND MR. HIXSON. Repeated in Autumn. Sec. A.—daily, 2:00–4:00; Sec. B.—daily, 11:00–1:00, PROFESSOR JORDAN, ASSISTANT PROFESSOR HARRIS, AND DR. HEINEMANN.

22. General Bacteriology.—Mj. Spring and Summer, DR. HEINEMANN; Winter, DR. KYES.

23. Advanced Bacteriology.—Open to a limited number of specially prepared students and graduates in medicine. Lectures on specially selected topics. Repeated each quarter. Hours to be arranged. Mj. PROFESSOR JORDAN and ASSISTANT PROFESSOR HARRIS.

24. Public Hygiene.—The applications of Bacteriology to municipal hygiene. Water supply, food supply, sewage disposal, etc. $\frac{1}{2}$ Mj. Spring, PROFESSOR JORDAN.

GRADUATE COURSES

25. Research in Bacteriology.—Mj. or DMj. Each quarter, PROFESSOR JORDAN AND ASSISTANT PROFESSOR HARRIS.

26. Sanitary Aspects of Milk Supply.—Practice in laboratory methods of the examination of milk. Limited to six students. Prerequisite: Chemistry and Bacteriology. Hours to be arranged. Mj. Winter, ASSISTANT PROFESSOR HARRIS. [Not given in 1912.]

27. Sanitary Water Analysis.—Chemical, bacterial, and microscopical methods. Lectures and laboratory work. Prerequisite: Chemistry 8 and Bacteriology. Mj. Winter, DR. HEINEMANN.

28. Parasitology.—A general laboratory course relative to the occurrence and disease-producing power of plant and animal parasites found in man and other vertebrates. Mj. Spring, ASSISTANT PROFESSOR KYES.

29. Course in Immunity.—Experimental production of antibodies, with a quantitative study of the phenomena of cytolysis (hemolysis and bacteriolysis), agglutination, toxin neutralization, etc. A laboratory and conference course. Prerequisite: Bacteriology and Pathology, or equivalents. Mj. Autumn, ASSISTANT PROFESSOR KYES.

JUNIOR AND SENIOR COURSES (WEST SIDE)

12. Special Pathologic Anatomy and Histology.—Limited to twenty-five students. Practical instruction is given in the methods of making post-mortem examinations and of recording the results. The student studies and describes the gross and microscopic appearance of diseased organs and tissue. Bacteriologic and chemical methods and experiments are employed whenever indicated and the clinical relations (pathologic physiology) of the morbid conditions are emphasized. Prerequisite: courses Pathology 1A and 1B. Daily 2:00-4:00, except Saturday, and autopsies two hours weekly. 120 hours. 1.2 Mj. Summer, Autumn, Winter, and Spring, PROFESSOR LE COUNT AND DR. DICK.

13. The Histology and Diagnosis of Tumors.—Prerequisite: courses Pathology 1A and 1B. 8:00-10:00 A.M. 72 hours. Mj. Autumn, PROFESSOR LE COUNT.

17. Advanced Laboratory Work and Research in Pathology.—Open to a limited number of specially qualified students and graduates in medicine. Hours arranged for each student. Credit given based on time and quality of work. Throughout the year. PROFESSORS HEKTOEN AND LE COUNT AND ASSISTANTS.

VII. DEPARTMENT OF MEDICINE

OFFICERS OF INSTRUCTION

INTERNAL MEDICINE

FRANK BILLINGS, S.M., M.D., Professor and Head of the Department of Medicine.

NORMAN BRIDGE, A.M., M.D., Emeritus Professor of Medicine.

HENRY BAIRD FAVILL, M.D., Professor of Medicine.

JAMES BRYAN HERRICK, A.M., M.D., Professor of Medicine.

BERTRAM WELTON SIPPY, M.D., Professor of Medicine.

JOSEPH LEGGETT MILLER, M.D., SAMUEL ROBERT SLAYMAKER, M.D.; JOSEPH ALMARIN CAPPS, A.M., M.D.; THEODORE TIEKEN, M.D.; BIRD McPHERSON LINNELL, M.D., Associate Professors of Medicine.

LUDWIG MANHEIMER LOEB, M.D.; JOHN LAURENCE JACQUE, M.D.; JAMES MURRAY WASHBURN, M.D.; MOSES MILTON PORTIS, M.D.; JOSEPH C. FRIEDMAN, M.D.; ALEXANDER FRANCIS STEVENSON, M.D.; ROLLIN TURNER WOODYATT, M.D.; WILBER E. POST, M.D.; ERNEST EDWARD IRONS, M.D.; JOHN RITTER, M.D.; LEON BLOCH, M.D.; ELLIS KIRK KERR, M.D.; SIDNEY STRAUSS, M.D.; KARL K. KOESSLER, M.D.; EDWARD CARL ROSENOW, M.D.; CHRISTIAN DENCKER, M.D., Assistant Professors of Medicine.

RALPH WALDO WEBSTER, M.D., Ph.D.; ARTHUR A. SMALL, M.D.; WALTER WILE HAMBURGER, M.D., Instructors in Medicine.

WILLIAM H. WALKER, M.D.; ROBERT STANTON MCCAUGHEY, M.D.; FREDERICK OLAF FREDRICKSON, M.D.; FREDRICK ADOLPH SPEIK, M.D., Associates in Medicine.

GEORGE HALPERIN, M.D.; CLARENCE L. WHEATON, M.D.; HENRY WILLIAM ABELMAN, M.D.; JOHN J. ALDERSON, M.D.; WILLARD WOODARD DICKER, M.D.; HERMAN ARNIM KLEIN, M.D.; JOHN WESLEY TOPE, M.D.; SIGISMUND FRANKLIN WATERMAN, M.D.; RALPH C. BROWN, M.D.; MAURICE BUCHSBAUM, M.D.; ROY H. COX, M.D.; C. A. GRIFFITH, M.D.; ADELBERT M. MOODY, M.D.; LELAND E. PHIPPS, M.D.; ROBERT C. REIMCHE, M.D.; EUGENE T. TALBOT, JR., M.D.; ISADORE M. TRACE, M.D., Assistants in Medicine.

HOMER KING NICOLL, A.B., M.D., *Dane Billings* Fellow in Medicine.

PEDIATRICS

JOHN MILTON DODSON, A.M., M.D., Professor of Medicine (Pediatrics).

ALFRED CLEVELAND COTTON, A.M., M.D., Professor of Medicine (Pediatrics).

FRANK SPOONER CHURCHILL, M.D., Associate Professor of Medicine (Pediatrics).

JAMES WARREN VANDERSLICE, M.D.; JULIA DYER MERRILL, M.D.; SAMUEL JOHNSON WALKER, M.D.; HENRY F. HELMHOLZ, M.D.; ALEXANDER COBURN SOPER, JR., M.D.; FRANK WESLEY ALLIN, M.D.; CLIFFORD G. GRULEE, A.M., M.D., Assistant Professors of Medicine (Pediatrics).

ISAAC JOSEPH FRANKLIN, M.D.; GRACE HARRIET CAMPBELL, M.D.; MARIA BLAIR MAYER, M.D.; HERBERT GAINES VAUGHAN, M.D.; LEON MAURICE BOWES, M.D.; GRACE MEIGS, M.D., Associates in Medicine (Pediatrics).

ERNEST CLEVERDON, M.D.; GUSTAV LEONARD KAUFFMAN, M.D.; GEORGE EDWIN BAXTER, M.D.; PHILIP S. CHANCELLOR, M.D.; CHARLES SCHOTT, M.D., Assistants in Medicine (Pediatrics).

NERVOUS AND MENTAL DISEASES

THOR ROTHSTEIN, M.D., Professor of Medicine (Nervous and Mental Diseases).

SIDNEY KUH, M.D.; JAMES CORNELIUS GILL, M.D.; GEORGE WASHINGTON HALL, A.M., M.D.; PETER BASSOE, M.D., Associate Professors of Medicine (Nervous and Mental Diseases).

JOSEPHINE ESTABROOK YOUNG, M.D., Assistant Professor of Medicine (Nervous and Mental Diseases).

DANIEL ROBERT BROWER, M.D.; SIGMUND KRUMHOLZ, M.D., Instructors in Medicine (Nervous and Mental Diseases).

MAURICE BRAUDE, M.D., Associate in Medicine (Nervous and Mental Diseases).

EDWARD W. BODMAN, M.D.; RALPH HAMILL, M.D.; EDWIN T. SECOR, M.D.; WILLIAM FREDERICK DEY, M.D., Assistants in Medicine (Nervous and Mental Diseases).

INTRODUCTORY

In this department instruction is given in the topics usually comprised under the terms Internal Medicine, Pediatrics, and Neurology. The abundant clinical material in the Central Free Dispensary, the Presbyterian, the Children's Memorial, Cook County, and other hospitals, makes it possible to give instruction largely by object-lessons—the actual study of disease in the living patient by students arranged in small groups. The courses comprise (A) a series of clinics to small groups of students in the Cook County and Presbyterian hospitals, (B) arena clinics at Rush Medical College, (C) courses in physical and laboratory diagnosis, (D) a protracted course in the Central Free Dispensary, and (E) other lecture, conference, and clinical courses in the several topics. Each student should so elect his work in this department as to secure a comprehensive knowledge of the whole field of general medicine, including Neurology and Pediatrics.

There are required for graduation courses 2, 5, and 6, and in addition thereto at least .8 major in Internal Medicine, .4 major in Pediatrics, and .4 major in Nervous and Mental Diseases.

COURSES OF INSTRUCTION

INTERNAL MEDICINE

JUNIOR YEAR

2. Physical Diagnosis.—A conference and practical course on the methods of physical exploration, chiefly of the normal body. M., Tu., W., Th., F., 8:00. 60 hours. 6 Mjs. Autumn, PROFESSOR ROTHSTEIN, ASSOCIATE PROFESSOR TIEKEN, ASSISTANT PROFESSORS WASHBURN, MERRILL, STEVENSON, IRONS, WOODYATT, RITTER, AND DENCKER, AND DR. DICKER.

3. Clinic and Conference at the Cook County Hospital.—Topics: Autumn: Diseases of the Heart and Bloodvessels. Winter: Constitutional Diseases and Diseases of the Kidney and Ductless Glands; Spring: Diseases of the Alimentary Tract and Liver. Limited to ten students. Th., 9:00–11:00; Sat., 8:00–9:00. 36 hours. 4Mj. ASSOCIATE PROFESSOR SLAYMAKER.

3A. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Constitutional Diseases and Diseases of the Kidney and Ductless Glands. Winter: Infectious Diseases and Diseases of the Blood; Spring: Diseases of the Heart and Bloodvessels. Limited to ten students. W., 2:00–4:00; M., 5:00–6:00. 36 hours. 4Mj. ASSOCIATE PROFESSOR MILLER.

3B. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Constitutional Diseases and Diseases of the Kidney and Ductless Glands; Winter: Diseases of the Heart and Bloodvessels; Spring: Infectious Diseases and Diseases of the Blood. Limited to ten students. Tu., 2:00–4:00; Th., 3:00–4:00. 36 hours. 4Mj. ASSOCIATE PROFESSOR CAPPS.

3C. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Respiratory Diseases; Winter: Diseases of the Heart and Bloodvessels; Spring: Constitutional Diseases and Diseases of the Kidney and Ductless Glands. Limited to ten students. M., 9:00–11:00; Sat., 8:00–9:00. 36 hours. 4Mj. ASSOCIATE PROFESSOR TIEKEN.

3E. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Diseases of the Alimentary Tract and Liver; Winter: Respiratory Diseases; Spring: Infectious Diseases and Diseases of the Blood. Limited to ten students. Tu., 9:00–11:00; Sat., 8:00–9:00. 36 hours. .4Mj. ASSISTANT PROFESSOR PORTIS.

3F. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Respiratory Diseases; Winter: Infectious Diseases and Diseases of the Blood. Limited to ten students. Sat., 8:00–9:00; Sat., 9:00–11:00. 36 hours. .4Mj. ASSISTANT PROFESSOR LOEB.

3G. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Diseases of the Alimentary Tract and Liver; Winter: Respiratory Diseases; Spring: Diseases of the Heart and Bloodvessels. Limited to ten students. Tu., 5:00–6:00; Th., 4:00–6:00. 36 hours. .4Mj. ASSISTANT PROFESSOR FRIEDMAN.

3H. Clinic and Conference Course at the Cook County Hospital.—Topics: Summer: Diseases of the Heart and Bloodvessels; Autumn: Infectious Diseases and Diseases of the Blood; Winter: Diseases of the Alimentary Tract and Liver; Spring: Respiratory Diseases. Limited to ten students. Sat., 8:00; W., 9:00–11:00. 36 hours. .4Mj. ASSISTANT PROFESSOR BLOCH.

3J. Clinic and Conference Course at the Cook County Hospital.—Topics: Summer: Infectious Diseases and Diseases of the Blood; Autumn: Diseases of the Heart and Bloodvessels; Spring: Respiratory Diseases. Limited to ten students. W. 9:00–11:00; Sat., 8:00–9:00. 36 hours. .4Mj. ASSISTANT PROFESSOR KERR.

3K. Clinic and Conference Course at the Central Free Dispensary.—Topic: Diagnostic Methods. Autumn, Winter, and Spring. Tu., Fri., 9:00–11:00. 48 hrs. .4Mj. ASSISTANT PROFESSOR DENCKER.

3Y. Clinic and Conference Course at the Central Free Dispensary.—Topic: Diagnostic Methods. Autumn, Winter, and Spring. Th., 9:00–11:00, Sat. 8:00. 36 hrs. .4Mj. ASSISTANT PROFESSOR JACQUE.

4. Conference Course on the Diseases less commonly seen in this region.—Summer and Spring. M., W., F., 8:00. 36 hours. .6Mj. ASSISTANT PROFESSORS STEVENSON, IRONS, KOESSLER, OR DENCKER.

5. Laboratory Diagnosis.—A laboratory course in the chemical, microscopic, and bacteriologic examination of blood, urine, sputum, gastric contents, feces, secretions, exudates, etc., and their pathologic and clinical significance, especial attention being given to their bearing upon diagnosis. Each class limited to 36 students. 72 hours. Autumn: Tu., W., Sat., 9:00–11:00; Winter: Sec. A.—M., W., Th., 9:00–11:00; Sec. B.—Tu., F., Sat., 9:00–11:00. .6Mj. ASSISTANT PROFESSORS WASHBURN, STRAUSS, KOESSLER, AND DENCKER, AND DRs. HAMBURGER AND WALKER.

SENIOR YEAR

6. A Clinical Course.—In the Central Free Dispensary each quarter. In the departments of Internal Medicine, of Pediatrics, and of Nervous and Mental Diseases, conducted by members of the department. Prerequisite: Physical and Laboratory Diagnosis and at least .8 major of clinical work. In sections, one quarter for each section. Daily, 9:00–11:00. 144 hours. 1.2 Mjs.

6A. Clinical Course in the Presbyterian Hospital.—Two Senior students will be assigned to each of the four medical services in the Presbyterian Hospital, and two to the service in Diseases of Children, for a period of one month, to serve daily as clinical clerks and laboratory assistants. Each student so assigned will serve in the clinical laboratory of the hospital daily from 8:00 to 9:00, and will make rounds with the interne at some other period of the day to be agreed upon. Approximately 60 hours. .3Mj.

8. Clinical Medicine.—A clinical and conference course in general medicine with special reference to Diseases of the Alimentary Tract. M., Th., 9:00–11:00. 48 hours. .4Mj. Summer, ASSISTANT PROFESSOR STRAUSS AND DR. HAMBURGER.

9. Clinical Medicine.—Clinical and conference course in general diseases including those of the Blood and Ductless Glands, with special reference to Applied Therapeutics. M., Th., 9:00–11:00. 48 hours. .4Mj. Prerequisite: Courses Mat. Medica 53 and 53A. Autumn, PROFESSOR BILLINGS.

9A. Clinical Medicine.—A clinical and conference course in medicine with special reference to the Infectious Diseases. M., Th., 9:00–11:00. 48 hours. .4Mj. Winter, ASSOCIATE PROFESSOR TIEKEN, OR ASSISTANT PROFESSORS JACQUE, POST, ROSENOW, OR HAMBURGER.

10. Clinical Medicine.—A clinical and conference course in medicine with special reference to Diseases of the Heart and Kidney and to Applied Therapeutics. Prerequisite: courses III, 53 and 53A (Materia Medica). M., Th., 9:00–11:00. 48 hours. .4Mj. Spring, PROFESSOR BILLINGS.

11. Clinical Medicine.—A clinical and conference course in medicine. Summer: Infectious Diseases and Specific Therapy. ASSISTANT PROFESSOR IRONS.

11. Autumn: Diseases of the Heart, Kidney, and Bloodvessels. PROFESSOR HERRICK.

11. Winter: Diseases of the Respiratory Tract. PROFESSOR HERRICK.

11. Spring: Diseases of Metabolism. Tu., F., 9:00–11:00. Tu., at the Cook County Hospital; F., in the College Amphitheater. Each course 48 hours. .4Mj. ASSISTANT PROFESSOR WOODYATT.

13. Clinical Medicine.—A clinical and conference course in medicine Summer: Tuberculosis. ASSISTANT PROFESSORS LOEB AND RITTER.

13. Autumn: Infectious Diseases. PROFESSOR SIPPY.

13. Winter: Diseases of the Alimentary Tract. PROFESSOR SIPPY.

13. Spring: Diseases of the Respiratory Tract. W., S., 9:00–11:00. W., Cook County Hospital; Sat., College Amphitheater. Each course 48 hours. .4Mj. ASSISTANT PROFESSORS LOEB AND KOESSLER.

25. Diseases of the Stomach.—A clinical and laboratory course, limited to twelve students. About three-fourths of the course will be devoted to the practical examination of patients in the Central Free Dispensary, and the remainder to laboratory investigation. Hours to be announced. .4Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR PORTIS.

28. Medical Tuberculosis.—A clinical and conference course in the medical, and especially in the sociologic measures, for the prophylactic and curative treatment of tuberculosis. Students taking this course will assist the physician in charge of the Rush Medical College station of the Chicago Tuberculosis Institute, and will also visit with him, or the visiting nurse, the homes of the tubercular patients. Limited to two students. W., Sat., 9:00–11:00. .4 to .6Mj. ASSISTANT PROFESSOR RITTER, DR. WHEATON, AND ASSISTANTS.

33. Variola (Extra-mural).—A clinical course in variola, at the Chicago Isolation Hospital, at intervals as material is afforded. Classes limited to ten each. .2M. ASSOCIATE CLINICAL PROFESSOR HEMAN SPALDING.

34. A Course in Clinical Medicine (Extra-mural).—At St. Luke's Hospital. Limited to small groups. W., 4:00–6:00. 24 hours. .2Mj. Winter, PROFESSOR HENRY B. FAVILL.

36. Clinical Diagnosis Course.—A course in clinical instruction, including all necessary chemical, microscopic, and bacteriologic examinations of blood, urine, sputum, gastric contents, feces, etc. Limited to six students. Summer and Spring, W., 9:00–11:00; 24 hours. .3Mj. ASSOCIATE PROFESSOR LINNELL.

37. Diseases of Metabolism.—A conference course on the diseases of metabolism with special reference to their physiological chemistry. Tu., F., 9:00–11:00. 48 hours. .4Mj. Autumn and Spring, DR. WEBSTER.

38. Technique of Diagnosis.—A clinical and conference course in the Central Free Dispensary. Topics: (a) Autumn—General Symptomatology; (b) Winter: Special Symptomatology; Symptoms and Syndromes of Diseases of the Gastro-

intestinal Tract, Pancreas, and Liver; (c) Symptoms and Syndromes of Diseases of the Cardio-vascular System. M., W., F., 8:00. 36 hours. .6Mj. ASSISTANT PROFESSOR KARL K. KOESSLER.

PEDIATRICS

1. The Anatomy, Physiology, and Hygiene of Infancy.—A recitation and conference course. W., F., 8:00. 24 hours. .4Mj. Summer and Winter, ASSISTANT PROFESSOR MERRILL OR ALLIN.

6. Dispensary Clinic.—See page 59, one-fourth of the time allotted to this course is devoted to pediatrics.

7. Pediatric Clinic.—A clinical course in the Presbyterian Hospital and in Senn Hall. Topics: Autumn and Winter, the Diseases of the Respiratory Tract in Infancy and Childhood; Spring and Summer: The Diseases of Alimentation. M., Tu., and Th., 9:00–11:00. .6Mj. PROFESSOR COTTON AND ASSISTANT PROFESSORS VANDERSLICE AND MERRILL.

12. Pediatric Clinic.—A clinical course in the Presbyterian Hospital and in Senn Hall. Topics: Summer: The Diseases of the Newly-born; Autumn: The Diseases of the Alimentary Tract; Winter: The Infectious Diseases; Spring: The Diseases of the Heart, Blood, and Kidney. W., F., and Sat., 9:00–11:00. .6Mj. Limited to ten students. PROFESSOR DODSON AND ASSISTANT PROFESSOR GRULEE.

15. Pediatric Clinic.—A course in physical diagnosis and the demonstration of cases at the Children's Memorial Hospital. Topics: Autumn: The Methods of Examination of the Child and Demonstration of Clinical Cases; Spring: Infant Feeding: Clinical Demonstration and Practical Work in the Preparation of Infant Foods. Limited to eight students. M., Th., 2:00–4:00. .4Mj. ASSISTANT PROFESSOR HELMHOLZ.

16. Clinical Diagnosis of Infancy and Childhood.—A recitation and conference course, limited to twenty-four students. Winter. Tu., Th., 8:00. 24 hours. 4 Mjs. ASSISTANT PROFESSOR VANDERSLICE.

17. Pediatrics.—A bedside course at the Children's Memorial Hospital. Limited to eight students. Topics: Autumn, Infant Feeding; Winter and Spring, Infectious Diseases. W., 2:00–4:00. 24 hours. 2 Mjs. Students registering for this course should also register for course VIII, 27. ASSOCIATE PROFESSOR CHURCHILL.

17A. Pediatrics.—A clinical course at Children's Memorial Hospital. .2Mj. Autumn, Winter, and Spring. Limited to eight students. F., 2:00–4:00. ASSISTANT PROFESSOR SOPER.

18. Dietetics of Infancy.—A laboratory and conference course. M., W., F., 8:00. 36 hours. .5Mj. Autumn, ASSISTANT PROFESSOR GRULEE.

20. The Commoner Diseases of Infancy, including Rickets, Scurvy, Congenital Syphilis, Tuberculosis, Broncho-pneumonia, Cystitis, etc.—A clinical and conference course, Central Free Dispensary. Tu., 9:00–11:00; F., 8:00–9:00. 36 hours. .4Mj. Spring, ASSISTANT PROFESSOR GRULEE.

24. Pediatric Clinic.—A clinical course at the Children's Memorial Hospital. Limited to eight students. .2Mj. Autumn, Winter, and Spring. Tu., 2:00–4:00. 24 hours. Students taking this course should also register for course VIII, 28. ASSISTANT PROFESSOR WALKER.

30. Course in Clinical Pediatrics (Extra-mural).—At the West Side Hebrew Dispensary. M., Th., 4:00–6:00. 24 hours. .4Mj. Autumn and Spring, DR. MAY MICHAEL.

31. Course in Clinical Pediatrics (Extra-mural).—At the West Side Hebrew Dispensary. W., Sat., 2:00–4:00. 24 hours. .4Mj. Autumn and Spring, DR. FERGUSON.

NERVOUS AND MENTAL DISEASES

3D. Diseases of the Nervous System.—A clinical and conference course at the Cook County Hospital. Limited to ten students. 30 hours. .4Mj. Spring. F., 9:00–11:00; Sat., 8:00–9:00. ASSOCIATE PROFESSOR HALL.

3I. Diseases of the Nervous System.—Clinical and conference course at the Cook County Hospital. Limited to ten students. Autumn, Winter, and Spring, Tu., 9:00–11:00; Sat., 8:00. 36 hours. .4Mj. ASSOCIATE PROFESSOR BASSOE.

14. Dispensary Clinic in Diseases of the Nervous System.—9:00–11:00. 48 to 144 hours. .4 to 1.2 Mjs. PROFESSOR ROTHSTEIN, ASSOCIATE PROFESSORS GILL, HALL, BASSOE, ASSISTANT PROFESSOR YOUNG, AND DRs. KRUMHOLZ, BRAUDE, BODMAN, HAMILL, AND DEY.

See also course VII-6, page 59, one-fourth of which is given in the department of Nervous and Mental Diseases of the Dispensary.

21. Diseases of the Nervous System.—A clinical course in the amphitheater of Senn Hall, and at the Cook County Hospital. 48 hours. .4Mj. Summer, M., Th., 9:00–11:00, ASSOCIATE PROFESSORS BASSOE AND HALL.

21F. Diseases of the Nervous System.—Similar to course 21. Autumn. .4Mj. ASSOCIATE PROFESSORS HALL AND BASSOE.

21W. Diseases of the Nervous System.—Similar to course 21. .4Mj. Winter, PROFESSOR ROTHSTEIN.

21S. The Functional Nervous Disease.—A clinical course, hour and place as in course 21. .4Mj. Spring, PROFESSOR ROTHSTEIN AND ASSOCIATE PROFESSORS KUH, HALL, AND BASSOE.

22. Psychiatry or Nervous Diseases.—A clinical and conference course at the Cook County Hospital. Topic: Insanity. Autumn, Winter, and Spring. Conference: M., 5:00, Rush Medical College; Clinic: Th., 4:00–6:00, Cook County Hospital. 36 hours. .4Mj. ASSOCIATE PROFESSOR KUH.

VIII. DEPARTMENT OF SURGERY

OFFICERS OF INSTRUCTION

ARTHUR DEAN BEVAN, M.D., *Nicholas Senn* Professor and Head of the Department of Surgery.

DAVID WILSON GRAHAM, A.M., M.D., Clinical Professor of Surgery.

WILLIAM THOMAS BELFIELD, M.D., Professor of Surgery (Genito-urinary).

JOHN RIDLON, A.M., M.D., Professor of Surgery (Orthopedic).

CHARLES AUBREY PARKER, M.D.; DEAN DEWITT LEWIS, M.D.; LAWRENCE RYAN, M.D.; CHARLES JOSEPH ROWAN, M.D., Assistant Professors of Surgery.

EDWIN WARNER RYERSON, M.D., Assistant Professor of Surgery (Orthopedic).

EMANUEL FRIEND, M.D.; STEPHEN EDWARD DONLON, M.D.; GEORGE FARNSWORTH THOMPSON, M.D.; CARL BRADEN DAVIS, M.D.; COLEMAN GRAVES BUFORD, M.D.; DALLAS BALDWIN PHEMISTER, M.D.; VICTOR LUPU SCHRAGER, M.D.; HERMAN LOUIS KRETSCHMER, M.D.; PAUL OLIVER, M.D.; GEORGE GILBERT DAVIS, M.D.; HERBERT ANTHONY POTTS, M.D.; ISABELLA HERB, M.D., Instructors in Surgery.

ROBERT HARRY HERBST, M.D., Instructor in Surgery (Genito-urinary).

FREDERICK BROWN MOREHEAD, D.D.S., M.D., Instructor in Surgery (Oral and Dental).

JOHN PATRICK GRIMES, M.D.; THOMAS IRA MOTTER, M.D.; EVARTS AMBROSE GRAHAM, M.D.; VERNON CYRENIUS DAVID, M.D.; EDWARD JAMES LEWIS, M.D., Associates in Surgery.

JOHN ALFRED GRAHAM, M.D.; HAMILTON T. KING, M.D.; DAVID C. STRAUSS, M.D.; FLOYD BURKE RILEY, M.D., Assistants in Surgery.

PAUL B. MAGNUSON, M.D.; THOMAS P. LYNAM, M.D.; ROBERT O. RITTER, M.D.; RICHARD B. OLSON, M.D., Assistants in Surgery (Orthopedic).

HUGH JAMES POLKEY, M.D.; THEODORE DROSDOWITZ, M.D.; JOSEPH JOHNSTON SHERRILL, M.D.; EDWARD VON TOLL, M.D.; GEORGE LUDWIG ALT, M.D.; ROBERT EDWARD RANSMEIER, M.D., Assistants in Surgery (Genito-urinary).

HOLLIS E. POTTER, M.D., Assistant in Surgery (Radiology).

DALLAS BALDWIN PHEMISTER, M.D., *Nicholas Senn* Fellow in Surgery.

WALLACE BLANCHARD, M.D., Assistant Clinical Professor (extra-mural) of Surgery (Orthopedic).

SAMUEL G. WEBBER, M.D., Assistant Clinical Professor (extra-mural) of Surgery.

INTRODUCTORY

A total of 5½ majors in surgery is required. The following subjects are prerequisite to other courses and to final examination: Surgical Anatomy, .8; Surgical Pathology and General Surgery, 1; Clinic and Conference Courses, including one course on each of the divisions of Regional Surgery: (a) Head, Neck and Thorax; (b) Abdomen; (c) Extremities, 1.8; Genito-urinary, 4; Orthopedic, .2; Surgical Dispensary, .2; Operative Surgery on Cadaver and Animals, .3; Cook County Hospital Section Clinics, .2. In addition, one more major, elected as the student desires, and devoted either to laboratory or clinical work, is recommended.

COURSES OF INSTRUCTION

JUNIOR YEAR

1. Principles of Surgery and Surgical Pathology.—A conference and laboratory course. M., W., F., 4:00. 36 hours. .5Mj. Autumn, ASSISTANT PROFESSOR ROWAN, DRs. DAVIS, SCHRAGER, GRAHAM, LEWIS, AND DAVID.

2. Principles of Surgery and Surgical Pathology.—A conference and laboratory course, M., W., F., 4:00. 36 hours. .5Mj. Winter, ASSISTANT PROFESSOR ROWAN, DRs. DAVIS, SCHRAGER, GRAHAM, LEWIS, AND DAVID.

3. Surgical Anatomy.—A demonstration and conference course, with dissections of the abdomen and lower extremity. M., Th., 12:00–1:00. 24 hours. .4Mj. Autumn, ASSISTANT PROFESSORS PARKER AND LEWIS.

4. Surgical Anatomy.—A demonstration and conference course, with dissections of head, neck, thorax, and upper extremity. Tu., F., 12:00–1:00. 24 hours. .4Mj. Winter, ASSISTANT PROFESSORS PARKER AND LEWIS.

5. Clinical Surgery (Central Free Dispensary).—Including bandaging, surgical dressings, and surgical appliances. Daily, 11:00–1:00. 48 hours. .4Mj. Each quarter throughout the year; Sec. A.—M., Th.; Sec. B.—Tu., F.; Sec. C.—W., Sat. Each section limited to ten students. PROFESSOR BEVAN, ASSISTANT PROFESSORS PARKER AND ROWAN, AND DRs. CARL DAVIS, OLIVER, GEORGE DAVIS, POTTS, GRIMES, MOTTER, AND STRAUSS.

This course may be elected by Junior students after one quarter's residence in the clinical years during which other courses in surgery have been taken.

JUNIORS AND SENIORS

6. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in the surgery of the head, neck, and thorax. This course includes instruction in the administration of anesthetics,

11:00-1:00. M. and Th., Tu. and F., 48, 60, or 96 hours. .4, .6, or .8Mj. Autumn, PROFESSOR BEVAN, ASSISTANT PROFESSORS LEWIS, PARKER, ROWAN, RYAN, AND DR. DAVIS.

8. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in the surgery of the abdomen. This course includes instruction in the administration of anesthetics. M., and Th., Tu., and F., 11:00-1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Winter, PROFESSOR BEVAN, ASSISTANT PROFESSORS LEWIS, PARKER, ROWAN, RYAN, AND DR. DAVIS.

10. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in surgery of the extremities. This course includes instruction in the administration of anesthetics. M., Tu., Th., and F., 11:00-1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Spring, PROFESSOR BEVAN, ASSISTANT PROFESSORS LEWIS, PARKER, ROWAN, RYAN, AND DR. DAVIS.

12. Clinical Surgery.—A clinical and conference course in general surgery. This course includes instruction in the administration of anesthetics. M., Tu., Th., and F., 11:00-1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Summer, PROFESSOR BEVAN, ASSISTANT PROFESSORS LEWIS, PARKER, ROWAN, RYAN, AND DR. DAVIS.

Laboratory and research work in surgical pathology may be elected by a limited number of students in the laboratories of Professor Bevan, and credit in proportion to the character and length of course may be granted, but not to exceed in any one quarter .4Mj.

12A. Clinical Course in the Presbyterian Hospital (Optional).—Two to six students will be assigned to one of the clinical services in the hospital to serve for short periods to give anesthetics and act as clinical assistants. Hours to be assigned.

13. Orthopedic Surgery.—A clinical and conference course in orthopedic surgery. Tu., F., 11:00-1:00, Autumn, Winter and Spring. 48 hours. .4Mj. PROFESSOR RIDLON AND ASSOCIATES.

14. Orthopedic Surgery.—A clinical course at the Home for Crippled Children. M., Th., 2:00-4:00. 48 hours. .4Mj. Winter, Spring, and Summer, ASSISTANT PROFESSOR RYERSON, AND ASSISTANT.

14A. Orthopedic Surgery.—A clinical course at the Home for Destitute Crippled Children. T., F., 2:00-4:00. 48 hours. .4Mj. Autumn, Winter and Spring. ASSISTANT PROFESSORS PARKER AND BLANCHARD.

14B. Orthopedic Surgery.—A clinical course at the Home for Destitute Crippled Children. W., Sat., 2:00-4:00. 48 hours. .4Mj. DRs. PORTER AND JACOBS.

15. A Surgical Clinic.—Sat., 2:00-4:00. 24 hours. .2Mj. Summer, Autumn, Winter, and Spring, CLINICAL PROFESSOR GRAHAM.

16. A Practical Course in Operative Surgery on the Cadaver and on Animals.—Given to the class in sections. M., W., F., 4:00-6:00. 36 hours. .6Mj. Repeated each term of the Autumn and Winter Quarters and the first term of the Spring Quarter. Limited to twenty-four students. ASSISTANT PROFESSOR RYAN AND DR. GEORGE G. DAVIS.

17. Genito-urinary Diseases.—A clinical and conference course in diseases of the genito-urinary tract. Summer, Autumn, and Winter, Central Free Dispensary; Spring, College Amphitheater. Tu., F., 4:00-6:00. 48 hours. .4Mj. Each quarter, PROFESSOR BELFIELD, DR. HERBST, AND ASSISTANTS.

18. Clinical Course at the Cook County Hospital.—Class limited to eight students. Th., 11:00-1:00. 24 hours. .2Mj. Each quarter, ASSISTANT PROFESSOR ROWAN.

19. Clinical Course at the Cook County Hospital.—Class limited to eight students. F., 11:00-1:00. 24 hours. .2Mj. CLINICAL ASSISTANT PROFESSOR WEBBER.

20. Clinical Course at the Cook County Hospital.—Class limited to eight students. Hours to be announced. .24 hours .2Mj. ASSISTANT PROFESSOR KEYES.

21. Clinical Course at the Cook County Hospital.—Class limited to eight students. Tu., 11:00–1:00. 24 hours. .2Mj. ASSISTANT PROFESSOR RYAN.

22. Clinical Course at the Cook County Hospital.—Class limited to eight students. Autumn, Winter, and Spring, Tu., 7:00–9:00. 24 hours. .2Mj. ASSISTANT PROFESSOR ROWAN.

23. Clinical Course at the Cook County Hospital.—Class limited to eight students. Th., 7:00–9:00. 24 hours. .2Mj. ASSISTANT PROFESSOR RYAN AND DR. THOMPSON.

24. Orthopedic Surgery.—A clinical and conference course at the Cook County Hospital. M., 3:00. 12 hours. .1Mj. Autumn and Spring, ASSISTANT PROFESSOR RYERSON.

27. Orthopedic Clinic.—A clinic at the Children's Memorial Hospital. Limited to eight students. .2Mj. Autumn, Winter and Spring, W., 4:00–6:00. 24 hours. ASSISTANT PROFESSOR RYERSON.

28. Surgical Clinic.—A clinic at the Children's Memorial Hospital. Limited to eight students. .2Mj. Autumn, Winter, and Spring, Tu., 4:00–6:00. 24 hours. DR. BUFORD.

POSTGRADUATE

29. Operative Surgery for Postgraduates.—On dogs, surgery of gastrointestinal tract taking up gastrostomy, gastro-enterostomy, end to end intestinal anastomosis, lateral anastomosis, colostomy, Murphy button and anastomosis, gall-bladder drainage, etc. On the cadaver, amputations, ligations, drainage of joints, emergency and cranial operations. Four weeks, beginning July 1 and August 1. M., W., F., 4:00–6:00. Other days or months by special arrangement. Four or eight men. Fee, \$25.00. ASSISTANT PROFESSOR LAWRENCE RYAN AND DR. GEORGE G. DAVIS.

IX. DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

OFFICERS OF INSTRUCTION

JOHN CLARENCE WEBSTER, M.D., F.R.C.P. (Edin.), Professor and Head of the Department of Obstetrics and Gynecology.

RUDOLPH WIESER HOLMES, M.D., Associate Professor of Obstetrics and Gynecology.

ALBERT BELCHAM KEYES, M.D.; FRANK WORTHINGTON LYNCH, M.D., Assistant Professors of Obstetrics and Gynecology.

CHARLES EVART PADDOCK, M.D., Assistant Clinical Professor of Obstetrics and Gynecology.

CAREY CULBERTSON, M.D.; WILLIAM BERNHARDT FEHRING, M.D.; W. GEORGE LEE, M.D., NOBLE SPROAT HEANEY, M.D., Instructors in Obstetrics and Gynecology.

HARRY EDGAR MOCK, M.D., Associate in Obstetrics and Gynecology.

FRANZ HEINRICH HARMS, M.D., Assistant in Obstetrics and Gynecology.

INTRODUCTORY

The subjects of Obstetrics and Gynecology are taught in the Junior and Senior years in laboratory, recitation, and conference courses, in Dispensary and Hospital clinics, and in the conduct of labor in the homes of patients. Students are obliged to commence their studies by taking the laboratory and recitation courses. Final examinations in both courses are compulsory.

COURSES OF INSTRUCTION

OBSTETRICS

JUNIOR YEAR

1. Conference Course.—Anatomy and physiology of pregnancy, bacteriology of genital tract, diagnosis of uterine pregnancy, multiple gestation, hygiene and management of pregnancy, clinical phenomena of normal labor. .4Mj. Autumn, Tu., Th., 4:00-5:00, DR. HEANEY.

2. Conference Course.—Anatomy and physiology of normal labor, conduct and management of labor, sepsis in obstetrics, anatomy and physiology of puerperium, management of puerperal state, ectopic gestation, toxemia of pregnancy, eclampsia, premature expulsion of ovum, diseases of ovum. Prerequisite: course 1. .4Mj. Winter, Tu., Th., 4:00-5:00. ASSISTANT PROFESSOR PADDOCK.

3. Conference Course.—Pathology of pregnancy (continued), pathology of labor, anomalies of expellant powers and soft passages, placenta praevia, ablatio placentae, hemorrhage during third stage, postpartum hemorrhage, retained placenta, adherent placenta, rupture of uterus, inversion of uterus, pathology of the puerperium. Prerequisite: courses 1 and 2. Limited to forty students. .6Mj. Autumn: M., W., F., 5:00-6:00, ASSOCIATE PROFESSOR HOLMES. Spring: Sec. A.—M., W., F., 5:00-6:00, ASSOCIATE PROFESSOR HOLMES. Sec. B.—M., W., F., 4:00-5:00, ASSISTANT PROFESSOR LYNCH. Sec. C.—M., W., F., 4:00-5:00, ASSISTANT PROFESSOR PADDOCK. Sec. D.—Tu., Th., Sat., 3:00-4:00, DR. LEE.

4. Practical Obstetrics.—Occipito-posterior, face, brow, pelvic, transverse presentations, prolapse of cord, arms, legs, anomalies of the bony pelvis, artificial interruption of pregnancy, version, forceps, symphysiotomy, pubiotomy, embryotomy, Caesarian section. Prerequisite: courses 1, 2, and 4. Limited to twenty students. .4Mj. Summer: M., Th., 2:00-4:00, DR. LEE. Autumn: Sec. A.—W. Sat., 4:00-6:00, ASSISTANT PROFESSOR LYNCH. Sec. B.—M., Th., 2:00-4:00, DR. LEE. Winter: Sec. A.—W., Sat., 4:00-6:00, DR. CULBERTSON. Sec. B.—M., Th., 2:00-4:00, DR. HEANEY. Spring: M., Th., 4:00-6:00, DR. FEHRING.

SENIOR YEAR

5. Clinical Obstetrics.—In the maternity department of the Presbyterian Hospital, St. Luke's Hospital, Chicago Lying-in Dispensary, and Central Free Dispensary. Prerequisite: courses 1 and 2. .2Mj. Throughout the year. PROFESSOR WEBSTER, ASSISTANT PROFESSORS LYNCH AND PADDOCK, DRs. FEHRING, CULBERTSON, AND OTHERS. Attendance upon cases of confinement in various hospitals, and at the homes of patients is required of each student before graduation. Each student will be summoned to cases at the time of delivery, and will attend the patients during and after delivery, under supervision. Clinical records must be kept by students and certificates obtained.

GYNECOLOGY

JUNIOR YEAR

7. Conference Course in Gynecology.—Anatomy and Physiology of the female pelvic viscera; puberty, menstruation; case taking and physical examination; minor therapeutic measures. .4Mj. Autumn: M., W., 5:00-6:00, ASSISTANT PROFESSOR KEYES.

7A. Conference Course in Gynecology.—Injuries and displacements of the pelvic floor; affections of the vulva and vagina; malformation, inflammation, displacements and neoplasms of the uterus. Prerequisite: course 7. .4Mj. Winter, Tu., Th., 5:00-6:00, ASSISTANT PROFESSOR LYNCH.

7B. Conference Course in Gynecology.—Affections of the Fallopian tubes and ovaries; ectopic gestation; affections of the peritoneum and cellular tissue, bladder and urethra; sterility. Prerequisite, course 7. Spring, M., W., 5:00-6:00. .4Mj. DR. HEANEY.

JUNIOR AND SENIOR YEARS

6. Laboratory Course.—Limited to twelve students. 4Mj. Autumn: W., Sat., 11:00–1:00, DR. CULBERTSON. Winter: W., Sat., 11:00–1:00, DR. FEHRING. Spring: W., Sat., 11:00–1:00, DR. CULBERTSON.

8. Dispensary Clinics.—Conferences in practical Gynecology, limited to four in each section. Prerequisite: course 6. 24 hours. 4M. Each term throughout the year. M., Th., 11:00–1:00, DRs. FEHRING AND MOCK. Tu., F. 11:00–1:00, DR. CULBERTSON. W., Sat., 11:00–1:00, DR. HEANEY.

SENIOR YEAR

9. College Clinics.—In Gynecology and Obstetrics. Prerequisite: course 7. 48 hours. 4Mj. Each quarter throughout the year: W., Sat., 11:00–1:00. PROFESSOR WEBSTER AND ASSISTANT PROFESSORS KEYES AND LYNCH.

10. Special Laboratory Work.—For a limited number of students selected by the department staff.

Operative Obstetrics for Postgraduates.—Diagnosis; indications for operation; choice of procedure. Technique of all obstetrical operations. Prognosis, the technique of Forceps, Version, Craniotomy, Decapitation, will be practiced upon the manikin. Obstetrical injuries to the fetus and treatment. Course limited to 5 to 10 students. Duration, time, and price to be arranged. DR. HEANEY.

X. DEPARTMENT OF LARYNGOLOGY AND OTOTOLOGY

OFFICERS OF INSTRUCTION

EPHRAIM FLETCHER INGALS, A.M., M.D., Professor of Diseases of the Chest, and of Laryngology and Otology, and Head of the Department of Laryngology and Otology.

JOHN EDWIN RHODES, A.M., M.D., Associate Professor of Diseases of the Chest, and of Laryngology and Otology.

OTTO TIGER FREER, M.D.; GEORGE ABRAHAM TORRISON, M.D.; GEORGE ELMER SHAMBAUGH, M.D.; ELMER LAWTON KENTON, M.D., Assistant Professors of Laryngology and Otology.

DAVID FISKE, M.D.; THOMAS WILLIAMS LEWIS, M.D.; GEORGE WILLIAM BOOT, M.D.; STANTON ABELES FRIEDBERG, M.D.; ROBERT SONNENSCHIEIN, M.D., Instructors in Laryngology and Otology.

HENRY PATTERSON BAGLEY, M.D.; Associate in Laryngology and Otology.

GEORGE WARNER MOSHER, M.D.; DANIEL BERNARD HAYDEN, M.D.; Assistants in Laryngology and Otology.

HERMAN ROBERT BAUMGARTH, JR., M.D.; JULIUS SZYMANSKI, M.D.; JOHN CHARLES WILLIAMS, M.D.; JOHN JOSEPH KILLEEN, M.D.; PHILIP MAXWELL LE BEAU, M.D.; EDWARD P. NORCROSS, M.D.; HENRY H. EVERETT, M.D., Clinical Assistant in Laryngology and Otology.

AT THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY

NORVAL HARVEY PIERCE, M.D., Assistant Clinical Professor (Extra-mural) of Laryngology and Otology.

INTRODUCTORY

COURSES

Every physician before beginning the practice of medicine should have a working knowledge of the whole field, and should be equipped to diagnose the more common diseases generally included in the specialties, and to apply judicious

early treatment. These courses are, therefore, designed, not for specialists, but to furnish students a knowledge of those special diseases with which they must have to do in general practice.

A total of 1.2 Mj. is required in this department, but it is recommended that more be taken if time permits. Credit will not be allowed for a course repeated until all of the required work in the department has been completed. Courses 1 and 2 are prerequisite for the clinical courses. Students will be allowed to register for courses 1 and 2 in the Summer Quarter. Students who have taken course 1 in the Spring Quarter will be allowed to register for courses 2 and 3 in the Summer Quarter.

COURSES FOR PRACTITIONERS

Physicians desirous of gaining a better knowledge of the work in the special fields of Laryngology and Otology may register for any of the courses in the department. Opportunity is offered for the study of the special anatomy and physiology of these subjects as well as for clinical study. Courses 6, 7, 8, and 9 are suited for this purpose; also course 20 on the Anatomy of the Ear (see p. 39).

COURSES OF INSTRUCTION

1. Rhinology, Laryngology, and Otology.—Introductory lecture course. Prerequisite for the clinical courses. 4Mj. Lectures: Tu., Th., 8:00. Spring (for Juniors), ASSISTANT PROFESSORS SHAMBAUGH AND FREER. Summer (for Seniors), ASSISTANT PROFESSOR TORRISON AND DR. FISKE.

2. Nose, Throat, and Ear.—Practical courses in the Dispensary in the technique of examination in the objective study of the normal and the commoner pathological conditions of the nose, throat, and ear, and intubation of the larynx. Sections limited to six students. Prerequisite for the succeeding clinical courses. Each quarter throughout the year. 36 hours. .3Mj.

Summer.—Sec. A.—Ear: Th., 2:00–3:00, DR. FISKE. Nose and Throat: M., Th., 3:00–4:00, DR. SONNENSCHN. Sec. B.—Ear: Tu., 2:00–3:00, DR. BOOT. Nose and Throat: Tu., 3:00–4:00, F., 2:00–3:00, DR. ———. Sec. C.—Ear: W., 2:00–3:00, DR. HAYDEN; Nose and Throat: W., Sat., 3:00–4:00, DR. LEWIS.

Autumn, Winter, and Spring.—Sec. A.—Ear: Th., 2:00–3:00, DR. FISKE. Nose and Throat: M., Th., 3:00–4:00, DR. SONNENSCHN. Sec. B.—Ear: Tu., 2:00–3:00, DR. BOOT. Nose and Throat: Tu., 3:00–4:00, F., 2:00–3:00, DR. TORRISON. Sec. C.—Ear: W., 2:00–3:00, DR. HAYDEN. Nose and Throat: W., Sat., 3:00–4:00, DR. LEWIS.

2F. Nose, Throat, and Ear.—Clinical and practical course at the Cook County Hospital. Similar to course 2. Prerequisite: course 1. Limited to ten students. M., F., 2:00–4:00. 36 hours. .3Mj. Autumn, Winter, and Spring, DR. FRIEDBERG.

3. Clinical Courses.—Prerequisite: courses 1 and 2. Students who have taken course 1 in the Spring Quarter will be allowed to register for courses 2 and 3 in the Summer Quarter. Each quarter throughout the year. Students may register for both sections A and B in the same quarter: or may take the sections in different quarters.

Sec. A.—Diseases of the Nose and Throat. 24 hours. .2Mj. W., 2:00–4:00. Summer Quarter, DRs. FRIEDBERG AND BAGLEY. Autumn Quarter, ASSOCIATE PROFESSOR RHODES AND DR. LEWIS. Winter Quarter, ASSISTANT PROFESSOR FREER AND DR. SZYMANSKI. Spring Quarter, ASSISTANT PROFESSOR TORRISON AND DR. ———.

Sec. B.—Diseases of the Ear. 24 hours. .2Mj. F., 2:00–4:00, Autumn, Winter, and Spring Quarters, ASSISTANT PROFESSOR SHAMBAUGH. Summer, F., 2:00–4:00, DR. BOOT.

4. Diseases of the Nose, Throat, and Ear, at the Illinois Charitable Eye and Ear Infirmary.—Clinical course (Extra-mural). Prerequisite: courses 1 and 2. Class limited to ten students. .2Mj. Autumn and Winter, W., 2:00-4:00. ASSISTANT CLINICAL PROFESSOR PIERCE.

6. Special Work for Student Assistants in the Dispensary.—Junior or Senior students may register as follows: M. and Th., one student in Nose and Throat and one in Ear; Tu. and F., one student in Nose and Throat and one in Ear; W. and Sat., one student in Nose and Throat and one in Ear. Hours in Nose and Throat: 1:45-4:00; Ear: 1:30-3:00. .2Mj.

7. Surgical Anatomy of the Ear.—A course for advanced students and practitioners. Class limited to six students. 12 hours. .2Mj. Autumn, W., 3:00-4:00, DR. HAYDEN, Winter, Tu., 3:00-4:00, DR. BOOT.

8. Surgical Anatomy, Physiology, and Pathology of the Nose and Throat.—A course for advanced students and practitioners. Class limited to six students. 12 hours. .2Mj. Summer and Winter Quarters, M., 4:00-5:00, DR. SONNENSCHNEIN.

6. Bronchoscopy, Esophagoscopy, and Direct Laryngoscopy.—For advanced students and practitioners. 6 hours. .1Mj. Hours to be announced. Spring, Second Term, DRs. FRIEDBERG AND SONNENSCHNEIN.

10. Defects of Speech.—A lecture and clinical course offered to graduate students and to Seniors who have completed 1.2Mjs. of work in the department. From the standpoint of the anatomy and physiology of speech-production the important disorders of speech are considered, including defects of articulation, stammering, the aphonias organic and functional, the difficulties of public speakers and singers, etc. 8 to 12 hours. .1Mj. Summer, ASSISTANT PROFESSOR KENYON.

XI. DEPARTMENT OF OPHTHALMOLOGY

OFFICERS OF INSTRUCTION

WILLIAM HAMLIN WILDER, M.D., Professor and Head of the Department of Ophthalmology.

EDWARD VAIL LAPHAM BROWN, M.D., Assistant Professor of Ophthalmology.

JOHN BERNARD ELLIS, M.D.; FRANCES A. LANE, M.D., Instructors in Ophthalmology.

ALBERT MARVIN HALL, M.D., AUSTIN ALBERT HAYDEN, M.D.; CHARLES GILCHRIST DARLING, M.D.; CHARLES PORTER SMALL, M.D.; FRED WILLIS KETTLESTRINGS, M.D.; WILLIAM GEORGE REEDER, M.D.; HERBERT WALKER, M.D., Associates in Ophthalmology.

PHILIP ALFRED CRUM, M.D.; HENRIETTA MAE FARQUHARSON, M.D., Assistants in Ophthalmology.

INTRODUCTORY

UNDERGRADUATE COURSES

A total of .8 majors in Ophthalmology is required for graduation.

Every well-educated physician should have a general knowledge of ophthalmology.

The work in this department is arranged so that the student first gets a general survey of the subject through lecture and recitation courses.

In the same quarter, or the following one, through the courses in "practical ophthalmology" he is taught the methods of examination of the eye by various tests, the necessary manipulations for treatment, and the use of the ophthalm-

scope by practical exercises on schematic and living eyes. For this work each student must provide himself with an ophthalmoscope.

All this is *preliminary* and *prerequisite* to the clinical courses, in which the student is given the privilege of examining the cases, of studying the progress of the diseases and the effect of the treatment from day to day, and also of witnessing the technic of the operations on the eye. These clinics are on the conference plan, and each exhibition of cases is followed by a discussion on the etiology, pathology, symptomatology, and treatment of the diseases under observation.

Practical courses in refraction are offered for undergraduates and also for practitioners of medicine, in which the methods of fitting glasses are taught.

Special courses for small classes on the normal and morbid anatomy, histology, and bacteriology of the eye are made particularly instructive by the exhibition of anatomical preparations and microscopic slides.

GRADUATE COURSES

Courses will be arranged for physicians who desire to prepare themselves for the practice of ophthalmology, comprising instruction in the anatomy, physiology, bacteriology, and pathology of the eye, in ophthalmoscopy and refraction, and opportunities for clinical work as assistants in the Central Free Dispensary and elsewhere. Preparation for such special practice should be undertaken only by physicians who have had considerable experience in general practice, and should extend over at least six quarters. These need not, however, be taken consecutively but may be attended one, two, or more quarters at a time, at the convenience of the practitioner.

COURSES OF INSTRUCTION

1. Diseases of the Eye.—A lecture and recitation course. 24 hours. .4Mj. W., Sat., 4:00–5:00, Summer (Seniors), DR. DARLING; W., F., 4:00–5:00, Autumn (Seniors), DR. ELLIS; M., Th., 4:00–5:00, Winter (Seniors), DR. HAYDEN; W., F., 5:00–6:00, Spring (Juniors), ASSISTANT PROFESSOR BROWN.

2. Practical Ophthalmology in the Central Free Dispensary.—Limited to ten students in each section. Each section one term. 12 hours. .2Mj. Summer, Tu., F., 2:00–3:00, DR. REEDER; Autumn, M., Th., 2:00–3:00; DR. ELLIS; Autumn, W., Sat., 2:00–3:00, DR. SMALL; Winter, Tu., F., 2:00–3:00, DR. REEDER; Spring, M., Th., 2:00–3:00; DR. HAYDEN; Spring, W., Sat., 3:00–4:00, DR. DARLING.

Courses 1 and 2 may be taken in the same quarter but both are prerequisite to all clinical courses.

3. Clinical, Conference, and Lecture Course.—Prerequisite: courses 1 and 2. Each quarter, M., 2:00–4:00. 24 hours. .2Mj. Limited to 20 students. Summer, DR. ELLIS; Autumn, Winter, and Spring, PROFESSOR WILDER.

4. Clinical Courses on the Eye at the Illinois Charitable Eye and Ear Infirmary.—Prerequisite: courses 1 and 2. Two sections each quarter except summer. Limited to ten students each. 24 hours. .2Mj. Sec. A, Th., 2:00–4:00, PROFESSOR WILDER; sec. B, Sat., 4:00–6:00, ASSISTANT PROFESSOR BROWN AND DR. LANE.

5. Clinical Course at the Cook County Hospital.—In this course special attention is given to the relation of the eye to general disease. Prerequisite: courses 1 and 2. 24 hours. .2Mj. Autumn, Winter, and Spring, Th., 2:00–4:00, DR. KETTLESTRINGS.

6. Normal and Pathological Anatomy and Bacteriology of the Eye.—A course for advanced students and practitioners. Limited to five students.

One term. 24 hours. Sat., 3:00-5:00. .2Mj. Summer, University of Chicago, ASSISTANT PROFESSOR BROWN (see course Pathology 6); Spring, Eye and Ear Infirmary, DR. LANE; Autumn, Bacteriology of the Eye, at the Eye and Ear Infirmary, 4:00-5:00, DR. WALKER.

7. Refraction.—A practical course (optional) for undergraduates. Limited to ten students. Each term of every quarter. 2:00-3:00, two days a week. 12 hours. .1Mj. DR. DARLING.

8. Refraction.—A special course for practitioners. Limited to six students. Tuition \$25. Summer and Spring. Hours to be announced.

XII. DEPARTMENT OF SKIN AND VENEREAL DISEASES

OFFICERS OF INSTRUCTION

OLIVER SAMUEL ORMSBY, M.D., Associate Professor and Head of the Department of Skin and Venereal Diseases.

HENRY GILES ANTHONY, M.D., Assistant Professor of Skin and Venereal Diseases.

ERNEST LEWIS McEWEN, S.M., M.D.; WILLIAM AUGUSTUS QUINN, M.D.;
Instructors in Skin and Venereal Diseases.

WILLIAM J. M. CUNNINGHAM, M.D., Associate in Skin and Venereal Diseases.

ERNEST WILLIAM POTTHOFF, M.D.; ARTHUR NORTON MACKEY, M.D.; JOHN

FRANK WAUGH, M.D., Assistants in Skin and Venereal Diseases.

EDWARD ALLEN OLIVER, M.D., Assistant in Cutaneous Pathology.

INTRODUCTORY

The work of this Department is elective and offered to members of the Senior class. Instruction is given by clinical teaching in the College Amphitheater, the Dispensary, and the Cook County Hospital, by recitations and by demonstrations to small classes of clinical, bacteriologic, and pathologic phenomena.

Instruction in this Department is supplemental by ample use of the large collection of dermatological plates, atlases, and photographs arranged in cases in proximity to the upper amphitheater; also by use of the Baretta Models procured in Paris for use of this Department.

It is suggested that students begin work in this Department by taking course 1 (open to Juniors in the Spring Quarter), and every student is expected to follow this with course 2. The textbooks used are Hyde *On the Skin*, and Hyde and Montgomery's *Manual of Syphilis and the Venereal Diseases*.

COURSES OF INSTRUCTION

1. Skin, Genito-urinary, and Venereal Diseases.—A recitation and conference course given to the class in sections not exceeding twenty-five. 8:00-9:00. 24 hours. .4Mj. Summer, DR. CUNNINGHAM; Autumn, DR. QUINN; Winter, DR. MACKEY; Spring, DR. McEWEN.

2. Clinical Course.—A clinical course on the subject of Skin, Genito-urinary, and Venereal Diseases. The clinic has been conducted in the College for many years and is attended by a large number of out-patients of both sexes and all ages. Each quarter throughout the year. Tu., F., 2:00-4:00. 48 hours. .4Mj. Summer and Winter, ASSISTANT PROFESSOR ANTHONY; Autumn and Spring, ASSOCIATE PROFESSOR ORMSBY.

3. Clinical Course in the Central Free Dispensary.—A clinical course given to the class in small sections in the dermatological and genito-urinary departments of the Central Free Dispensary. The student is here brought in personal

contact with patients and required to examine and prescribe for them as in private practice. 24 hours. .4M. Each term throughout the year, daily 2:00-4:00, ASSISTANT PROFESSOR ANTHONY, DRs. McEWEN, QUINN, AND CUNNINGHAM.

4. **Clinical Course in Dermatology at the Cook County Hospital.**—A clinical demonstration course given to the class in small sections. Winter. 24 hours. .2Mj. F., 2:00-4:00, ASSOCIATE PROFESSOR ORMSBY.

5. **Syphilis**, with reference to involvement of the viscera, and of the nervous, osseous, and muscular systems.—A lecture course given to the class in small sections. M., F., 8:00-9:00. 12 hours. .4M. Each term of the Autumn Quarter, DR. McEWEN.

6. **Histopathology and Bacteriology of the Skin.**—A demonstration course including instruction and practical work in methods peculiar to the study of cutaneous pathology and bacteriology. Hours to be announced. Open to practitioners and limited to eight students. 24 hours. .4M. Autumn and Spring, ASSISTANT PROFESSOR ANTHONY.

XIII. GENERAL LECTURES AND OPTIONAL COURSES

1. **Medical Jurisprudence.**—A lecture course supplemented by recitations and conferences. .6M. Winter. Hours to be announced.

2. **The History of Medicine (Optional).**—A lecture course by PROFESSOR DODSON. Winter. Hours to be announced.

3. **Examinations for Life Insurance (Optional).**—A lecture and conference course on the nature and purpose of life insurance; the duties and essential qualifications of the examiner for life insurance, etc. Winter. Hours to be announced.

4. **Medical Economics (Optional).**—A lecture course in medical economics and ethics. .1Mj. 6 hours. Winter. Hours to be announced.

LABORATORIES, EQUIPMENT, AND LIBRARIES

THE HULL BIOLOGICAL LABORATORIES

On December 14, 1895, Miss Helen Culver, of the city of Chicago, presented to the University of Chicago property valued at \$1,000,000—the whole gift, according to the terms of the letter of endowment, to be devoted to the increase and spread of knowledge within the field of the biological sciences. From this fund there have been erected, at the north end of the University grounds, four buildings to serve as laboratories for the Anatomical, Botanical, Physiological, and Zoölogical Sciences. Medical instruction is given in the Anatomical, Physiological, and Zoölogical Laboratories.

THE ANATOMICAL LABORATORY

The Anatomical Laboratory is 120 by 50 feet, and four stories high, exclusive of the basement and attic, and was constructed to provide for Anatomy, both gross and microscopic, including Neurology. In the basement are special rooms for keeping frogs and similar animals at low temperatures, a bone-room, a storage room for anatomical material, and a crematory. The first floor is occupied by three large laboratories for microscopic work (Histology, Microscopic Anatomy, Neurology, and Pathology), and a large photographic room containing a stone pier and connected with a dark-room. On the second floor there is an additional room for general class work in microscopic branches, a lecture-room, and an osteological laboratory. Here too, are located the laboratories of the staff in

Neurology and a laboratory for advanced work and original research in Neurology. On the third and fourth floors are situated the dissecting rooms for Human Anatomy, the private laboratories for instructors and research workers, and two laboratories for the making of special preparations. In the attic there is a well-lighted operating room adjoining a large animal room; in addition, several storerooms are situated here. The laboratories are well equipped for work in gross and microscopic Anatomy and in Pathology, and especial facilities are afforded for advanced work and original research.

THE PHYSIOLOGICAL LABORATORY

The Physiological Laboratory is 102 by 52 feet and four stories high, exclusive of the basement and attic. The basement contains a cold-storage room, aquarium room, an animal room, dark-room, and storerooms. It is connected with the greenhouse of the laboratory. The first floor contains general laboratories for beginners, a shop, a storeroom, a lecture-room, and a photographic room. The second floor contains a large lecture-room with preparation room and storeroom, the departmental library, an optical room, two dark-rooms, and private laboratories. The third floor contains two laboratories for advanced workers in Physiology, a laboratory for beginners in Physiological Chemistry and Pharmacology, a balance-room, and several smaller rooms for work in Physiological Chemistry and Pharmacology. The fourth floor contains two rooms with cages for animals and two operating rooms. In addition, two laboratories for work in Physiological Chemistry and Pharmacology, a combustion room, and a room for work in gas-analysis. The laboratories are well equipped both for general instruction in Physiology, Physiological Chemistry, and Pharmacology, and for advanced and research work in these sciences.

THE ZOÖLOGICAL LABORATORY

The Zoölogical Laboratory is 120 by 50 feet, and four stories high, exclusive of the basement. On the first floor are located the library of the biological departments, a synoptical museum, a large laboratory for elementary Zoölogy, and a laboratory for research work in Pathology. The second floor contains one large laboratory for beginners in research, and a number of smaller laboratories for more advanced work. The third floor contains three large laboratories for comparative Anatomy and Embryology, and a number of rooms for research. The fourth floor is devoted to the laboratories of Bacteriology, which are supplied with sterilizers, incubators, special microscopes, and other bacteriological apparatus, and are furnished with tables for microscopical work and for the usual laboratory manipulations. The basement contains one large room with glass-covered extension on the south side, designed for an aquarium; two rooms for use as aviaries, vivaria, etc.; one room for paleontological material; and one for taxidermy and museum purposes. The best optical and other apparatus demanded by zoölogical work are provided. There are series of models and charts illustrating embryological and morphological subjects, and ample facilities for keeping land and aquatic animals under favorable conditions for study.

THE KENT CHEMICAL LABORATORY

The Chemical Laboratory was provided by the generosity of Mr. Sidney A. Kent, is 176 by 64 feet, and is three stories high exclusive of the basement. An amphitheater seating 750 people forms an annex to the building. Lectures are

given in rooms on the first floor. The laboratory instruction in General Inorganic and Elementary Organic Chemistry is given on the third floor in three large laboratories accommodating 300 students. Each student is given a separate desk supplied with gas and water, and is furnished with all the necessary chemicals and apparatus. The laboratories for analytical chemistry are on the second and third floors. The advanced work in Chemistry is done in general and private laboratories on the first and second floors. There are a number of small rooms used as balance, combustion, gas-analysis, photographic rooms, etc. The Chemical Library contains full sets of the most important journals, books of reference, and other works relating to Chemistry.

THE LIBRARIES

The General Library, located at Fifty-eighth Street and Ellis Avenue, is for the use of students in all departments of the University. Students who have matriculated and paid their library fee may take at one time three volumes from the General Library. These may be kept two weeks, and at the end of that time, if desired, may be renewed for two weeks. Former students may continue the use of the Library by the payment of the library fee of \$2.50 per quarter.

The total number of books at present in the Library is approximately 376,335 accessioned. Number of volumes in Departmental Libraries of departments concerned in medical instruction, May 1, 1911: Biology, including Anatomy, Neurology, Physiology, Bacteriology, Pathology, Zoölogy, Physiological Chemistry, and Pharmacology, 21,664; Chemistry, 3,021; Physics, 3,405.

In addition thereto are many thousand volumes not yet catalogued.

All the branch and departmental libraries are catalogued and classified.

The General Library is open on every week-day from 8:30 A.M. to 5:30 P.M. The Library receives 1,731 current periodical publications, including the transactions and proceedings of learned societies. The Departmental Libraries are closed at 6:00 P.M., and are not open during the evening except to those to whom special permission had been granted by the departmental adviser.

The students of the University are permitted to use the books and periodicals in the Newberry Library and in the Crerar Library, both of which contain a large number of medical and general scientific works.

The Public Library of Chicago is also available to medical students for general reading.

BUILDINGS, EQUIPMENT, AND HOSPITAL FACILITIES AT RUSH MEDICAL COLLEGE

THE CLINICAL BUILDING, located at West Harrison and Wood Streets, is 60 by 80 feet, and four stories in height. The first floor is occupied by the college library and reading-room. On the second floor are situated the offices of the College, the lower amphitheater, seating 400, and clinical waiting-rooms. The third floor contains the upper amphitheater, seating 530 persons, a large surgical examining- and dressing-room, five clinical examining-rooms, and a waiting-room for patients. The fourth floor is occupied in part by the upper amphitheater, and in part by the laboratory for surgical and orthopedic appliances and bandaging.

SENN HALL, erected through the munificence of the late Professor Senn and other members of the faculty, adjoins the Clinical Building on the east. It covers

a ground space of 40 by 90 feet, is seven stories in height (including the basement), and of absolutely fireproof construction. The basement and first three floors, affording over 10,000 square feet of floor space, are devoted to the dispensary and the clinical teaching connected therewith. The fourth and fifth floors are occupied by clinical laboratories and recitation rooms. The remaining two stories contain two surgical and medical amphitheaters, seating about 150 each, with necessary waiting and preparation rooms.

THE LABORATORY BUILDING, on the south side of Harrison Street, is 100 by 45 feet in area, and six stories in height (including the basement). The basement is occupied by storage-rooms for apparatus, an animal room for the laboratory of Pathology and Bacteriology, and a cloak-room for students. Adjoining the basements is a separate building for the preparation and storage of cadavers by the cold-storage process, with a capacity for about two hundred bodies. The first and second stories are devoted to the Department of Pathology and Bacteriology which is fully equipped with the necessary microscopes and other apparatus for advanced work in these branches. The third floor is occupied by the Department of Chemistry and Toxicology, and is supplied with all the necessary apparatus and materials for advanced work in these branches in their relation to practical medicine. The fourth floor contains four recitation rooms and a laboratory for Pharmacy and Therapeutics. The fifth floor is devoted to advanced work in practical gross Anatomy, and to Operative Surgery.

THE PRESBYTERIAN HOSPITAL, with accommodations for about 300 patients, adjoins the College, and is connected with it, so that patients may be transferred directly from the wards to the clinical amphitheaters. In this hospital over 5,000 patients are treated annually, and it thus affords a large amount of valuable material for the clinics.

ATTENDING STAFF OF THE PRESBYTERIAN HOSPITAL

MEDICINE

Attending Physicians: DRs. FRANK BILLINGS, JAMES B. HERRICK, BERTRAM W. SIPPY, JOSEPH L. MILLER. *Assistant Attending Physicians:* DRs. JOSEPH A. CAPPS, THEODORE TIEKEN, B. M. LINNELL, L. M. LOEB, JOHN L. JACQUE, JAMES M. WASHBURN, ROLLIN T. WOODYATT, EDWARD C. ROSENOW, WILBER E. POST, ERNEST E. IRONS, SIDNEY STRAUSS, KARL K. KOESSLER, WALTER W. HAMBURGER, F. A. SPEIK.

DISEASES OF CHILDREN

Attending Physicians: DRs. ALFRED C. COTTON, JOHN M. DODSON. *Assistant Attending Physicians:* DRs. J. W. VANDERSLICE, JULIA D. MERRILL, HENRY F. HELMHOLZ, FRANK W. ALLIN, CLIFFORD G. GRULEE.

PSYCHIATRY AND NEUROLOGY

Attending Physicians: DRs. THOR ROTHSTEIN, PETER BASSOE. *Assistant Attending Physician:* DR. RALPH HAMILL.

SURGERY

Attending Surgeons: DRs. ARTHUR DEAN BEVAN, DAVID W. GRAHAM, DEAN D. LEWIS. *Assistant Attending Surgeons:* DRs. CHARLES A. PARKER,

LAWRENCE RYAN, CHARLES J. ROWAN, EMANUEL FRIEND, CARL B. DAVIS, D. B. PHEMISTER, V. P. SCHARGER, PAUL OLIVER, GEORGE G. DAVIS, F. B. MOOREHEAD, EVARTS A. GRAHAM, V. C. DAVID. *Attending Urologist:* DR. H. L. KRETSCHMER.

ORTHOPEDIC SURGERY

Attending Surgeon: DR. JOHN RIDLON.

OBSTETRICS AND GYNECOLOGY

Attending Obstetricians and Gynecologists: DRS. JOHN CLARENCE WEBSTER, A. BELCHAM KEYES, FRANK W. LYNCH. *Assistant Attending Obstetricians and Gynecologists:* DRS. CAREY CULBERTSON, WILLIAM B. FEHRING, NOBLE S. HEANEY.

LARYNCOLOGY AND OTOTOLOGY

Attending Laryngologists: E. FLETCHER INGALS, OTTO T. FREER. *Assistant Attending Laryngologists:* DRS. GEORGE TORRISON, S. A. FRIEDBERG, GEORGE W. MOSHER.

Attending Aurist: DR. GEORGE E. SHAMBAUGH. *Assistant Attending Aurist:* DR. GEORGE W. BOOT.

OPHTHALMOLOGY

Attending Ophthalmologist: DR. WILLIAM H. WILDER. *Assistant Attending Ophthalmologists:* DRS. E. V. L. BROWN, JOHN B. ELLIS, FRANCIS LANE.

DERMATOLOGY

Attending Dermatologist: DR. OLIVER S. ORMSBY. *Assistant Attending Dermatologists:* DRS. ERNEST L. MCEWEN, J. FRANK WAUGH.

PATHOLOGY

Attending Pathologists: DR. LUDWIG HEKTOEN, EDWIN R. LE COUNT. *Resident Pathologist:* DR. ADELBERT M. MOODY.

CHEMISTRY

Attending Chemist: DR. WALTER S. HAINES.

X-RAY DEPARTMENT

Attending Roentgenologist: DR. HOLLIS E. POTTER.

THE CHILDREN'S MEMORIAL HOSPITAL, with six buildings and about 170 exclusively free beds, provides an exceptionally valuable clinical material for the study of the medical and surgical affections of infancy and childhood. Under the contract entered into between the trustees of this hospital and Rush Medical College, this material is made available to the faculty and students of Rush Medical College for instruction and research.

ATTENDING STAFF OF THE CHILDREN'S MEMORIAL HOSPITAL

Attending Physicians: DRS. FRANK S. CHURCHILL, SAMUEL J. WALKER, ALEX. C. SOPER, JR., HENRY F. HELMHOLZ. *Assistants:* DRS. GRACE MEIGS, G. L. KAUFFMAN, EDWARD W. BODMAN, GEORGE E. BAXTER, CHARLES SCHOTT.

Attending Neurologist: DR. THOR ROTHSTEIN.

Attending Surgeons: DRS. CHARLES A. PARKER, COLEMAN G. BUFORD. *Assistants:* DRS. HERMAN L. KRETSCHMER, JOHN A. GRAHAM, FLOYD B. RILEY.

Attending Orthopedic Surgeon: DR. EDWIN W. RYERSON. *Assistant:* DR. ROBERT O. RITTER.

Attending Laryngologists: DRs. DAVID FISKE, GEORGE W. BOOT.

Attending Ophthalmologist: DR. ALFRED M. HALL. *Assistant:* DR. JOHN B. ELLIS.

Attending Dermatologists: DR. HENRY G. ANTHONY. *Assistant:* DR. ALBERT N. MACKEY.

Pathologist: DR. GLADYS ROWENA HENRY.

THE HOME FOR DESTITUTE CRIPPLED CHILDREN, situated about one-half mile from the College, has about 600 beds, an out-patient department, and a convalescent home at Engleton, about forty minutes' ride from the city. Under the contract recently entered into between the directors of the Home and the trustees of Rush Medical College, this clinical material is made available to the faculty and students of the College for instruction and research. It affords excellent opportunities in Orthopedic Surgery.

STAFF OF THE HOME FOR DESTITUTE CRIPPLED CHILDREN

DR. JOHN RIDLON, President.

CONSULTING STAFF

JOHN RIDLON, Department of Orthopedic Surgery.

JAMES B. HERRICK, Department of Medicine.

ARTHUR DEAN BEVAN, Department of Surgery.

JOHN M. DODSON, Department of Pediatrics.

THOR ROTHSTEIN, Department of Neurology.

WILLIAM H. WILDER, Department of Ophthalmology.

E. FLETCHER INGALS, Department of Nose and Throat.

LUDWIG HEKTOEN, Department of Pathology.

OLIVER S. ORMSBY, Department of Dermatology.

ATTENDING STAFF

E. W. RYERSON, J. L. PORTER, and WALLACE BLANCHARD, Orthopedic Surgeons.

S. R. SLAYMAKER, Department of Medicine.

C. G. GRULEE, Department of Pediatrics.

PETER BASSOE, Department of Neurology.

JOHN B. ELLIS, Department of Ophthalmology.

J. E. RHODES, Department of Nose and Throat.

GEORGE E. SHAMBAUGH, Department of Otorhology.

E. L. McEWEN, Department of Dermatology.

C. G. BUFORD and DEAN D. LEWIS, Department of General Surgery.

HUGO OLDENBORG, Department of Kinesitherapy.

FREDERICK BROWN MOOREHEAD, Department of Oral Surgery.

ASSOCIATE ATTENDING STAFF

CHARLES M. JACOBS and CHARLES A. PARKER, Associate Orthopedic Surgeons.

ASSISTANT ATTENDING STAFF

THOMAS P. LYNAM, Department of Orthopedic Surgery.

WILLARD WOODARD DICKER, Department of Medicine.

EUGENE S. TALBOT, JR., Department of Pediatrics.

RALPH C. HAMILL, Department of Neurology.

CARL B. DAVIS, Department of General Surgery.

J. J. KILLEEN, Department of Nose and Throat.

ATTENDING PHYSICIAN TO THE CONVALESCENT HOME

DR. RICHARD B. OLSEN

IN THE COOK COUNTY HOSPITAL, which is situated opposite the College, are treated about 20,000 patients annually. In this institution are given about forty clinics a week, including all varieties of medical and surgical cases. The facilities for the study of Pathology which are offered at the Cook County Hospital are unexcelled in this country. Between 300 and 400 postmortems are made annually in the necropsy theater by Associate Professor Le Count, Assistant Professor Wells and the other pathologists of the hospital.

Clinical Courses in the Cook County Hospital are offered to the students of Rush Medical College by the following members of the faculty:

Attending Physicians: DRs. SAMUEL R. SLAYMAKER, JOS. L. MILLER, JOS. A. CAPPS, THEODORE TIEKEN, MOSES M. PORTIS, LUDWIG M. LOEB, JOSEPH C. FRIEDMAN, LEON BLOCH, ELLIS K. KERR.

Attending Neurologists: DRs. SYDNEY KUH, PETER BASSOE, GEORGE W. HALL.

Attending Pediatricist: DR. CLIFFORD G. GRULEE.

Attending Surgeons: DRs. LAWRENCE RYAN, CHARLES J. ROWAN, GEORGE F. THOMPSON, A. BELCHAM KEYES, SAMUEL G. WEBBER.

Attending Orthopedic Surgeon: DR. EDWIN W. RYERSON.

Attending Laryngologist: DR. STANTON A. FRIEDBERG.

Attending Ophthalmologist: DR. FRED W. KETTLESTRINGS.

Attending Dermatologist: DR. OLIVER S. ORMSBY.

The Library and Reading Room occupies the first floor of the Clinical Building, a most convenient location for students. The library contains 19,522 volumes, and files of all the leading medical journals in English, German, and French. During the last college year the library had a daily average attendance of 167 students.

Extra-mural courses.—Through the courtesy of the medical attendants and managing officers of several hospitals and dispensaries within convenient distance of the College, *extra-mural* clinical courses are offered to the students of Rush, in small groups, and the clinical material available for teaching has thus been greatly augmented. Such courses are offered at the West Side Hebrew Dispensary, treating over 30,000 cases annually; at the St. Luke's Hospital, with about 2,000 cases annually; at the Illinois Charitable Eye and Ear Infirmary, treating about 1,000 cases; at the Chicago Isolation Hospital; and at St. Anthony's Hospital, with about 100 beds.

FELLOWSHIPS, HOSPITAL INTERNES, AND PRIZES

(Rush Medical College)

FELLOWSHIPS

The following fellowships have been provided in the several departments:

1. The Fellowship in Chemistry. Not to be awarded in 1912-13.

2. The Fellowship in Pathology. Awarded to Dr. Adelbert Montague Moody.

3. The "Dane Billings Fellowship in Medicine." Awarded to Dr. Homer K. Nicoll.

4. The "Daniel R. Brower Fellowship," founded by the late Professor Daniel Roberts Brower, in the Department of Medicine. Not awarded in 1912-13.

5. The "Nicholas Senn Fellowship in Surgery," founded by the late Professor Nicholas Senn. Awarded to Dr. Dallas Baldwin Phemister.

HOSPITAL INTERNES

Positions as internes, through a competitive examination held by the respective hospital staffs, are open each spring to graduates of Rush Medical College in the following Chicago hospitals: the Presbyterian, the Children's Memorial, the Home for Destitute Crippled Children, the Cook County, the Michael Reese, the St. Joseph's, the St. Elizabeth's, the St. Luke's, the Augustana, the Chicago, the Alexian Brothers', the Passavant, the Chicago Policlinic, the German, the Norwegian, the Illinois Charitable Eye and Ear Infirmary, the Baptist, St. Anthony's, the Swedish, the Chicago Maternity, the Bridewell, the Columbus, the United States Marine, the Washington Park, and others, and in a much larger list of institutions outside of the city of Chicago which make appointments from the roll of qualified students of the Senior class in Rush Medical College. The occupants of these positions receive their board and lodging, and acquire experience in every department of practical Medicine and Surgery.

For several years past every graduate who was able and willing to accept an internship has secured such, and it has been impossible to fill a number of vacancies in desirable hospitals.

PRIZES

The Benjamin Rush Prize.—A medal of the value of \$50 is given by the faculty at each commencement to that member of the graduating class who passes the highest examination in every department of Medicine represented that year in the examination for the degree.

The Daniel Brainard Prize.—A medal is annually given by the faculty to the student who makes and presents to the College Museum the best accepted dissection in Surgical Anatomy.

The Freer Prizes.—These prizes are derived from the income of a fund presented to the College by the late Nathan M. Freer, of the Board of Trustees, as a memorial of the names of two honored members of his family long identified with the highest interests of this institution.

The J. W. FREER Medal and the sum of \$50 are awarded as a first prize to that member of the Junior or Senior class who presents the best thesis involving original investigation on the part of the student. A second prize of \$25 is awarded to the next successful competitor. The theses must be submitted to the Dean of Students on or before the first of April, 1913.

The L. C. P. FREER Medal and the sum of \$50 are offered as a first prize to that member of the Freshman or Sophomore class who presents the best thesis involving original investigation on the part of the student. A second prize of \$25 will be awarded to the next most successful of the competitors. *This prize*

will be competed for by students in the medical courses of the University. The theses must be placed in the hands of the Dean of Students by April, 1913.

Medical scholarships as prizes for research.—The Trustees of the College have established three scholarships in the Junior and Senior years as prizes for the best theses involving original work, in any of the branches usually included in the first two years of the medical curriculum: anatomy, both gross and microscopic, embryology, neurology, physiology, physiological chemistry, pharmacology, bacteriology, or pathology. This competition is open to students completing the second year of the medical course in university medical schools whose standards are equal to those of Rush Medical College. The first prize scholarship is the tuition for three quarters in Rush Medical College (\$180), the second prize, tuition for two quarters (\$120), and the third prize, tuition for one quarter (\$60).

Theses must be sent to the Dean of Medical Students, Rush Medical College, on or before April 1, 1913.

The Edward L. Holmes Prize.—In honor of the late Edward L. Holmes, for many years professor of diseases of the eye and ear in Rush Medical College and for several years its president, who during his long career rendered distinguished services to the institution, the Trustees have established the Edward L. Holmes Prize, for original research, to consist of a table and scholarship for one season at the Marine Biological Laboratory at Woods Hole, Mass. This prize is offered in recognition of the great service which is rendered to the medical sciences by research work in biology. The prize will not be offered for 1912-13.

The Henry M. Lyman Prize.—In memory of Henry M. Lyman, who for many years devoted much of his best energies and his unusual ability to the upbuilding of Rush Medical College and who served successively as Professor of Physiology and Neurology and Professor of Medicine, and who was later Dean of the Faculty, a fund has been created by his children, the proceeds of which, amounting to \$25 a year, will be offered as a prize to the member of the Junior or Senior class who shall present the best thesis on a topic connected with internal medicine. This thesis must include the results of original laboratory or ward work or of personal clinical observation. Before the work is undertaken by the student the head of the Department of Medicine should be consulted as to the choice of subject and other details.

The Howard T. Ricketts Prize.—In memory of Dr. Howard Taylor Ricketts, at one time a member of the Department of Dermatology, who died of typhus fever, while investigating that disease, in the City of Mexico, May 3, 1910, this Department has established a prize in Dermatology. This prize, of the value of \$25, will be awarded annually to the student presenting the best thesis embodying the results of original investigation on some topic related to dermatology.

INTERNESHIPS TAKEN BY THE MEMBERS OF THE GRADUATING CLASS

The list of internships accepted by the members of the graduating class of 1911-12, up to the date of printing this circular is as follows:

THOMAS D. REES, D. & R. G. Ry. Hospital, Colorado.

BEVERIDGE H. MOORE, New Haven Hospital, New Haven, Conn.

HENRY F. WATT, Osceola, Fla., Hospital.

LEAH RIKER, Chicago Lying-in Hospital.
ROY F. MILLS, Children's Memorial Hospital, Chicago.
CLAUDE D. HOLMES, Children's Memorial Hospital.
DELBERT H. LAIRD, Children's Memorial Hospital and Presbyterian Hospital,
Chicago.
HARLEY D. NEWBY, Cook County Hospital, Chicago.
LOUIS D. SMITH, Cook County Hospital, Chicago.
CHARLES C. HILLMAN, Cook County Hospital, Chicago.
RALPH C. SULLIVAN, Cook County Hospital, Chicago.
ALDEN L. CRITTENDEN, Cook County Hospital, Chicago.
CHARLES T. MAXWELL, Cook County Hospital, Chicago.
THOMAS C. GALLOWAY, Cook County Hospital, Chicago.
JOHN H. LINSON, Cook County Hospital, Chicago.
WILBUR R. HURST, Cook County Hospital, Chicago.
KARL WAHLBERG, Cook County Hospital, Chicago.
PHILIP M. DALE, Cook County Hospital, Chicago.
CARLIE B. SOUTER, Cook County Hospital, Chicago.
CLIFFORD R. ESKEY, Cook County Hospital, Chicago.
ROBERT C. ACKER, Cook County Hospital, Chicago.
ISRAEL SHERRY, Cook County Hospital, Chicago.
MAT BLOOMFIELD, Cook County Hospital, Chicago.
CLYDE VREELAND, Cook County Hospital, Chicago.
JAMES L. WILSON, Cook County Hospital, Chicago.
WILLIAM B. SMITH, Cook County Hospital, Chicago.
WALLIS W. SMITH, Cook County Hospital, Chicago.
HERMAN KOERPER, Cook County Hospital, Chicago.
CHARLES BURKHOLDER, Cook County Hospital, Chicago.
WILLIAM A. STROBEL, Cook County Hospital, Chicago.
FRANK BARTLETT, Cook County Hospital, Chicago.
FRED D. WORLTON, The Home for Destitute Crippled Children, Chicago.
RALPH B. HOWARD, Home for Destitute Crippled Children, Chicago.
FRED E. TORRANCE, House of Correction Hospital, Chicago.
MERCHANT C. FARGO, House of Correction Hospital, Chicago.
WILLIAM F. PETERSON, Michael Reese Hospital, Chicago.
IRVING STEIN, Michael Reese Hospital, Chicago.
WILSON A. MYERS, Michael Reese Hospital, Chicago.
JEROME F. STRAUSS, Michael Reese Hospital, Chicago.
GEORGE ABELIO, Michael Reese Hospital, Chicago.
PAUL C. FOX, Michael Reese Hospital, Chicago.
WILLIAM J. KOFMEHL, Monroe Street Hospital, Chicago.
JAMES PATTERSON, Presbyterian Hospital, Chicago.
JOHN H. McCLELLAN, Presbyterian Hospital, Chicago.
EDWARD W. KOCH, Presbyterian Hospital, Chicago.
RUSSELL M. WILDER, Presbyterian Hospital, Chicago.
EDWARD H. HATTON, Presbyterian Hospital, Chicago.
BENJAMIN F. DAVIS, Presbyterian Hospital, Chicago.
JAMES R. GREER, Presbyterian Hospital, Chicago.
SELIM W. McARTHUR, Presbyterian Hospital, Chicago.

HENRY J. ULLMANN, Presbyterian Hospital, Chicago.
CLAUDE D. HOLMES, Presbyterian Hospital, Chicago.
FRED E. ROBERG, Presbyterian Hospital, Chicago.
EUGENE CARY, Presbyterian Hospital, Chicago.
WILLIAM F. HEWITT, Presbyterian Hospital, Chicago.
DAVID BERKMAN, Presbyterian Hospital, Chicago.
ARTHUR J. MCCAREY, St. Anthony's Hospital, Chicago.
JOHN W. HAMPTON, St. Joseph's Hospital, Chicago.
EDWIN O. WOODS, St. Luke's Hospital, Chicago.
JOHN R. NEWMAN, St. Luke's Hospital, Chicago.
FREDRICUS BISDOM, St. Luke's Hospital, Chicago.
OLAF HAROLDSON, St. Luke's Hospital, Chicago.
ROSCOE MAIN, St. Luke's Hospital, Chicago.
PAUL R. WOHLER, St. John's Hospital, Springfield, Ill.
WARNER L. CROUCH, St. John's Hospital, Springfield.
WILLIAM H. RILEY, Harper Hospital, Detroit, Mich.
HARRY G. KNAPP, Minneapolis City Hospital, Minneapolis, Minn.
CLINTON G. STEWART, Minneapolis City Hospital, Minneapolis, Minn.
JOHN R. HUGHES, Minneapolis City Hospital, Minneapolis, Minn.
JESSE C. PAINTER, Northwestern Hospital, Minneapolis, Minn.
AUGUST H. ROSBURG, Los Angeles County Hospital, Los Angeles, Cal.
RALPH E. JOHNSTON, Kansas City, Mo., General Hospital.
CHARLES E. PALMER, Kansas City, Mo., General Hospital.
RICHARD C. HALSEY, Kansas City, Mo., General Hospital.
SHERMAN B. HIBBARD, Kansas City, Mo., General Hospital.
ARTHUR A. SMITH, Lincoln, Neb., Sanitarium.
CLARENCE E. EMERSON, Nebraska State Hospital.
JOHN M. F. HEUMANN, Omaha, Neb., General Hospital.
JOHN REUBEN GREEN, Miami Valley Hospital, Dayton, Ohio.
EUGENE T. PHELPS, Miami Valley Hospital, Dayton, Ohio.
FRED W. GAARDE, Akron, Ohio, City Hospital.
EDWARD C. BANKER, Akron, Ohio, City Hospital.
J. CRAIG BOWMAN, Grant Hospital, Columbus, Ohio.
HERBERT H. HUGHES, Good Samaritan Hospital, Portland, Ore.
JOHN Z. BROWN, Latter Day Saints' Hospital, Salt Lake City, Utah.
NEPHI J. REES, St. Mark's Hospital, Salt Lake City, Utah.
GEORGE F. ROBERTS, St. Mark's Hospital, Salt Lake City, Utah.
CLAUDE L. SHIELDS, St. Mark's Hospital, Salt Lake City, Utah.
GEORGE A. DAVIS, Wayside Emergency Hospital, Seattle, Wash.
WILLIAM H. OLDS, St. Luke's Hospital, Spokane, Wash.
ALBERT A. AXLEY, Madison, Wis., General Hospital.
LOUIS W. ALLARD, St. Mary's Hospital, Milwaukee, Wis.
HARRY OTTEN, St. Mary's Hospital, Milwaukee, Wis.
OREN WRIGHT, St. Mary's Hospital, Milwaukee, Wis.
EDWARD STRICK, Hope Hospital, Amoy, China.

The list of internships selected by members of the class of 1910-11 was published in the *Bulletin of the Alumni Association of Rush Medical College* for July, 1911.

SCHOLARSHIPS AND OTHER AID

HONOR SCHOLARSHIPS

Admission.—To a limited number of students of high rank from co-operating and affiliated high schools an honor scholarship (\$120 in tuition fees) is granted each year. Holders of honor scholarships are not required to render service to the University. These scholarships may be revoked at the end of any quarter, if the holder's work is not maintained at a satisfactory grade.

Honor scholarship.—"The Political Science Scholarship" yields \$200 annually and is awarded to an undergraduate who has been in residence two quarters, who has no more than nine majors, who has an average grade of C, and who in the first week of the Spring Quarter passes the best examination on the subject of "Civil Government of the United States." No award is made unless the examination mark is at least 80 per cent.

Second-year honor scholarships.—To twenty Junior College students who have shown exceptional ability in the work of the first year honor scholarships, (six) of which are called "Joseph Reynolds Scholarships for Boys," are granted for the second year (three quarters of the undergraduate course). The following specially endowed honor scholarships are available in the first or second year:

"The Morris Selz Scholarship," which grants full annual fees to the young woman who completes the first year with the highest standing.

"The Colby Scholarships," which yield full annual tuition fees for five graduates of Wayland Academy.

"The Pillsbury Academy Scholarship," which yields \$52 annually toward the fees of a graduate of Pillsbury Academy.

"The Walter D. Löwy Scholarship," which yields full annual fees (\$120) and is granted to a student of high scholarship, preferably to a person of the Jewish faith.

"The Chicago Scholarship," which gives full annual fees (\$120) to a Chicago student of high scholarship specializing in Semitics.

"The Elbert H. Shirk Scholarship," available for students nominated by the Shirk Estate, Peru, Ind., yields the annual tuition fees of \$120.

Senior College honor scholarships.—To twelve Senior College students nominated by the departments for excellent work in the Junior College courses, honor scholarships are granted to cover the tuition fees of the third year.

To twelve Senior College students of high scholarship and promise, honor scholarships, (five) of which are called "Joseph Reynolds Scholarships for Boys," are granted to cover the last year of undergraduate work. To both third- and fourth-year students the following specially endowed scholarships are open:

"The Marie J. Mergler Scholarship," which yields annual fees (\$120) to a young woman student specializing in Physiology.

"The Jacob Rosenberg Scholarship," which yields annual fees (\$120) and is available for any student of high scholarship.

"The Zwinglius Grover Scholarship," endowed by the Alumnae Association of Dearborn Seminary, yields annual fees (\$120) for a woman student.

"The Henry C. Lytton Scholarship," which yields the annual tuition fees (\$120).

"The Katherine M. White Scholarships," which yield \$360 annual fees for three students of high scholarship.

"The Scammon Scholarship," which yields \$20 toward the tuition fees of a student.

Graduate honor scholarships.—Twenty scholarships are assigned to students who have completed with honor the work of a Senior College. Each department of the University, with the approval of the Committee on Scholarships, has the privilege of naming a student who is for that year the honor student of the Senior Colleges in that department, and to this student there is given a graduate scholarship yielding in each case a sum equal to the University fees for three quarters, provided the student continues his studies in the Graduate Schools. The assignments are made in the Spring Quarter, and in no case does a scholarship continue beyond the end of the Spring Quarter next following the date of assignment.

COMPETITIVE AND PERSONALLY BESTOWED SCHOLARSHIPS

Certain scholarships are bestowed either by examination or by personal appointment as follows:

"The Enos M. Barton Scholarship," endowed by Mr. Enos M. Barton, of Chicago, provides for the tuition fees of a student for three quarters (\$120). It is awarded annually to an undergraduate student whose scholarship in preparatory work and in college shall reach "B," and who shall maintain this standing subject to forfeiture. Appointments made by Mr. Barton.

"The Talcott Scholarships," endowed by Mrs. William A. Talcott of Rockford, Ill., provide tuition fees to the amount of \$480 per year. This fund is reserved for graduate students, preferably graduates of Rockford College.

"Joseph Reynolds Scholarships," which yield \$1,320 per year, available in tuition fees for eleven men.

"Peter Tilton Scholarship," which yields \$40 in tuition fees.

PRIZE SCHOLARSHIPS

(Five) "Public Speaking Scholarships" of the total value of \$200 in tuition fees are granted to the winners in the quarterly Public Speaking Contests in the Junior Colleges.

"Oratorical Contest Scholarships" are granted to Senior College Students annually as follows: the first prize, \$120 in fees; the second, \$80 in fees; the third, \$40 in fees.

(Three) Scholarships of the value of \$40 each are awarded to the members of the college teams winning the Junior College contest in debate.

"Julius Rosenwald Oratorical Prizes" are granted to Senior College students annually as follows: \$100 cash to speaker ranking first; \$50 cash to speaker ranking second.

"The University Debate Scholarships" provide for the awarding of \$480 in tuition fees to those successful in securing positions on the debating teams of the University.

N.B.—*These prize scholarships may not be applied on deferred tuition bills or on notes.*

Medical Scholarships as prizes for research.—In order to encourage the investigative spirit and method among prospective medical students in the list of colleges recognized by the University of Chicago, the University offers three or four prize scholarships in the medical courses for the best theses involving original work in one of the sciences fundamental to medicine: physics, chemistry,

or any of the biological branches. Two or three of these are open to undergraduates only, as follows: The first prize scholarship, a sum equal to the tuition for three quarters (\$180); the second scholarship, a sum equal to the tuition for two quarters (\$120); and the third scholarship, a sum equal to the tuition for one quarter (\$60). Students submitting theses in this group must be members of the Senior class of the college which they are attending and must secure the Bachelor's degree from said college and be eligible to enter the Graduate School of the University of Chicago in order to claim the scholarship won.

One prize scholarship, yielding a sum equal to the tuition for three quarters (\$180), for a thesis similar to the above is open only to graduate students in these colleges.

The competition for these prize scholarships in medicine is open only to students in colleges which are in the recognized list of the University of Chicago.

Theses must be in the hands of the Dean of Medical Students, University of Chicago, on or before April 1, 1913. Further particulars in regard to these scholarships may be had on application to the Dean.

OTHER FORMS OF AID

Service scholarships.—A limited number of scholarships which require their holders to render service (usually two hours daily in one of the libraries) are granted to students of good scholarship who need financial aid.

The holders of scholarships are expected to report at the University in time for assignments *on the day preceding the opening of the quarter*. Holders of scholarships are expected to pay their tuition in cash at the beginning of each quarter, or make arrangements, satisfactory to the Registrar, for deferred payments, within five days of the beginning of the quarter. They will receive cash at the close of each quarter for the service rendered during the quarter.

University service.—Another means of assistance to students consists of University service. Students who receive assignments to such service are employed a limited number of hours as clerks or messengers in the various offices of the University. Compensation takes the form of a cash payment, made after the service has been rendered. Members of the University Choir and Band receive concessions in their fees proportioned to the amount and quality of the service they render. Students may also secure free table-board by serving as waiters in the University Commons.

The Students' Fund Society.—From a fund created by friends of the University loans are made to many students of worth and promise who need temporary aid. This fund is limited and is usually exhausted early in the academic year.

Outside employment.—The University maintains an Employment Bureau through which many kinds of work are found for students who are compelled to depend in whole or in part upon their own resources.

A *special circular* entitled *Assistance to Students* will be sent on request. It gives details concerning all the forms of aid, routine of application, etc.

FELLOWSHIPS

The Trustees of the University have established the following Fellowships and Scholarships:

1. *The University fellowships.*—The University appropriates annually the amount of twenty-one thousand, five hundred dollars (\$21,500) for Fellowships

in the Graduate Schools. These Fellowships are awarded by the Trustees, upon the recommendation of the President and the nomination of particular departments, to graduate students who desire to pursue advanced work in some special line. About seventy Fellowships, ranging in individual value from \$120, or tuition fees for three quarters, to \$520 are assigned each year.

2. *Applications for fellowships.*—Applications for Fellowships should be addressed to the Deans of the Graduate Schools of the University, *and should be in their hands on or before March 1.*

3. *Appointments to fellowships*—

a) *Date.*—The annual assignment of Fellowships is made early in April. A Fellowship is available for any three of the four quarters, beginning with the Summer Quarter, following the date of appointment.

b) *Attainments required.*—The candidate must have attained proficiency in some department. In general, he should have spent at least one year in resident study after receiving his Bachelor's degree. In making the appointment, special weight is given to theses indicating the candidate's ability to conduct original investigation.

4. *Special fellowships.*—In addition to the regular University Fellowships mentioned above, there are special Fellowships offered by individuals. These vary somewhat in number and amount from year to year. At present they are as follows:

a) *The William A. and Fanny C. Talcott Fellowships and Scholarships.*—In 1896 William A. Talcott, of Rockford, Ill., endowed four Fellowships and Scholarships, two of which bear his name and two the name of his wife, Fanny C. Talcott. They are intended primarily for the benefit of graduates of Rockford College, but, in the absence of such beneficiaries, may be assigned to others. They pay the tuition fees of those appointed to them.

b) *The Bucknell Fellowship*, yielding \$400, offered by Mr. Charles Miller, of Franklin, Pa., is open to graduates of Bucknell University. The appointment to this Fellowship is made by the faculty of Bucknell University.

c) *The Joseph B. Loewenthal Fellowship in Chemistry*, endowed by Mr. Berthold Loewenthal, of Chicago, as a memorial of his son, Joseph B. Loewenthal. It yields about \$420 to the incumbent annually appointed, and is awarded on the nomination of the Department of Chemistry and the recommendation of the President of the University.

d) *The Gustavus F. Swift Fellowship in Chemistry*, endowed by Mrs. Gustavus F. Swift, Chicago, as a memorial of her husband, Gustavus F. Swift. It yields about \$520 to the incumbent annually appointed, and is awarded for especial ability in research on the nomination of the Department of Chemistry and the recommendation of the President of the University.

MEDICAL SOCIETIES

The fact that a very large number of medical men practice in Chicago has led to the development of a number of medical societies, general and special. Among the more interesting to medical students in the early years of their course is the Chicago Pathological Society. A large number of clinical societies, notably the Chicago Medical Society and its various branches, will interest the student, particularly in the later years of his course.

The University of Chicago Biological Club meets on the second Tuesday evening of each month at the Quadrangle Club at 7:45 sharp. At the meetings of this society the advanced work and original research of the various laboratories will be reported, and topics of general medical and scientific interest will be discussed. The meetings are open to medical students. The Society holds no meetings during the Summer Quarter.

ALUMNI ASSOCIATION

The Alumni Association of Rush Medical College holds yearly meetings. These meetings, precede the regular commencement of the College, which will occur on June 12, 1912. All graduates of the College in good standing are eligible to membership, which can be obtained by the payment of one dollar, the annual dues. The officers for the year ending July 1, 1912, are as follows:

PRESIDENT—John Ritter, '80, Chicago

FIRST VICE-PRESIDENT—Charles J. Lewis, '65, Chicago

SECOND VICE-PRESIDENT—Thomas C. Murphy, '68, Hopedale, Ill.

THIRD VICE-PRESIDENT—Alexander F. Stevenson, '98, Chicago

NECROLOGIST—Charles A. Parker, '91, Chicago

TREASURER—H. H. Kleinpell, '00, Chicago

SECRETARY—Alexander C. Soper, Jr., '01, Chicago

EXECUTIVE COMMITTEE

Frank Cary, '82, *Chairman*, 2935 Indiana Ave., Chicago

David Fiske, '00, Chicago

F. Van Kirk, '01, Janesville, Wis.

Henry H. Kleinpell, '00, Chicago

F. A. Fisher, '01, Chicago

E. E. Irons, '03, Chicago

FELLOWSHIP COMMITTEE

George H. Weaver, '89, *Chairman*, 1628 Washington Blvd., Chicago

George D. Swaine, '73, Cleveland, Ohio

E. C. Hamley, '02, Sprague, Wash.

J. S. Kauffman, '75, Blue Island, Ill.

George W. Baker, '94, Ogden, Utah

Winfield Ackley, '80, Juniata, Neb.

W. A. Foskett, '97, Whitebird, Idaho

L. L. Uhls, '84, Osawatomie, Kan.

R. E. Farr, '00, Minneapolis, Minn.

Adolph Moeller, '87, Milwaukee

P. A. Reppert, '03, Burlington, Ia.

A. I. Bouffleur, '87, Chicago

R. C. Robe, '95, Pueblo, Colo.

Oliver C. Neier, '90, Indianapolis

ALUMNI REUNION COMMITTEE

Edmund A. Boas, '84, *Chairman*, 1205 La Salle Ave., Chicago

J. H. Nichols, '96, Mansfield, Ohio

E. M. Libby, '98, Iron River, Mich.

F. A. Tucker, '97, Noblesville, Ind.

B. M. Caples, '91, Waukesha, Wis.

G. N. Ryan, '95, Des Moines, Ia.

M. M. Loomis, '97, Omaha, Neb.

P. H. Stoops, '86, Sparta, Ill.

Geo. A. King, '04, Kansas City, Mo.

E. H. Bayley, '93, Lake City, Minn.

R. C. Robe, '95, Pueblo, Colo.

S. S. Smith, '69, Emporium, Pa.

H. E. Allen, '98, Seattle, Wash.

ALUMNI RELATIONS COMMITTEE

J. W. Pettit, '84 *Chairman*, Ottawa, Ill.

T. C. Clark, '81, Stillwater, Minn.

Thomas A. Crowder, '97, Chicago

EDITORIAL BOARD

Alfred N. Murray, '01, *Chairman, ex officio*, Chicago
 W. H. Wilder, '84, Chicago B. M. Linnell, '93, Chicago
 Ruth Tunnicliff, '03, Chicago

The dues should be sent to the Secretary of the Association, Dr. Alexander C. Soper, Jr., 4557 Evanston Avenue, Chicago.

The Association publishes a small bulletin four times a year. This for the present will be sent to members without extra charge. The Association also supports a Fellow doing research work in residence at the College. Contributions to this fund are solicited.

Alumni are requested to inform the College Recorder, James H. Harper, Rush Medical College, Chicago, of any change of address. They will also confer a favor by sending him a copy of any address, program, or other document, relating to the early history of the College.

GRADUATES FOR THE SESSION OF 1911-12

The degree of Doctor of Medicine was conferred on the following students at the close of the Summer Quarter, September 1, 1911:

Hendrik Nelson Belgum	John Hancock McClellan
Fredericus Augustinus Bisdom	Harley Dore Newby
van Cattenbroek	Roy Herbert Nicholl
John Zimmerman Brown	James Patterson
Harry John Corper	Leah Riker
John Reuben Green	Fred Emmanuel Roberg
Herbert Henry Hughes	Louis Daniel Smith
Marion Charles Krompotic	Edward James Strick
Delbert Harrison Laird	

At the close of the Autumn Quarter, December 21, 1911:

Clarence Emerson	Roscoe Conkling Main
Charles Clark Hillman	Abdul Hamid Orabi
Edward William Koch	Andrew Jackson Redmon

At the close of the Winter Quarter, March 21, 1912:

Robert Booth Acker	William Henry Olds, Jr.
Benjamin Franklin Davis	Jesse Carl Painter
Alden Larue Crittenden	William Ferdinand Peterson
Fred William Gaarde	August Henry Rosburg
James Richard Greer	Claude Lester Shields
Maude Hall	Harry Farlin Watt
Edward Howard Hatton	Russell Morse Wilder
Claude Du Vall Holmes	James Lee Wilson
Arno Benedict Luckhardt	Paul Reinhold Wohler
Charles Thomas Maxwell	Edwin Owen Woods
Arthur James McCarey	

The following will receive the degree at the close of the Spring Quarter, June 12, 1912:

George Abelio	Herman William Julius Koerper
Louis William Allard	William John Kofmehl
Albert August Axley	Roy Fallas Mills
Edward Cleveland Banker	William Alexander Myers
Mat Bloomfield	Harry Otten
Charles Augustus Burkholder	Charles Edward Palmer
Warner Latta Crouch	Israel Sherry
Eugene Cary	Arthur Andrew Smith
Clifford Rush Eskey	William Wallis Smith
Thomas Cyrus Galloway	Charlie Bell Souter
Olaf Haroldson	Lyman Allen Steffen
William Francis Hewitt	Irving Freiler Stein
Sherman Blaine Hibbard	Jerome Frank Strauss
Wilbur Randolph Hurst	Karl William Wahlberg
Ralph Sherwin Johnston	Fred Daniel Worlton
Harry Grove Knapp	Oren Henry Wright
John Henry Linson	

Candidates for the degree at the close of the Spring Quarter, 1912:

Aaron Arkin	Ralph Bowen Howard
Irwin Woodward Bach	John Riley Hughes
Frank Kaiser Bartlet	Grover Cleveland Klein
David Mayo Berkman	Archibald William Lauerman
Herbert Radcliffe Booth	Selim Walker McArthur
Harry McPherson Brandel	Eugene Franklin McCampbell
Fred Cornelius Caldwell	Beveridge Harshaw Moore
Claude William Carr	John Josiah Moore
Philip Marshal Dale	John Robert Newman
George Armar Davis	Eugene Talmadge Phelps
Katherine Dewey	Nephi John Rees
Merchant Charles Fargo	Thomas David Rees
Morris Fishbein	William Bowman Smith
Arthur Haeberlin Fisher	William George Strobel
Paul Christopher Fox	John Roscoe Steagall
Arthur Goettsch	Ralph Charles Sullivan
Richard Charles Halsey	Fred Emerson Torrance
John Martin Frederick Heumann	Henry John Ullmann
	Vernie Emma Woodward

MATRICULATES FOR THE SESSION OF 1911-12

The following list includes only those students who were in attendance during one or more quarters, and who were entitled to take the quarterly examinations.

ABBREVIATIONS—*u.* = University; *c.* = College; *s.* = School; *hs.* = High School; *a.* = Academy; *sm.* = Seminary; *inst.* = Institute (or Institution).

PERIOD OF RESIDENCE.—*s.* = Resident during Summer Quarter, 1911; *a.* = Resident during Autumn Quarter, 1911; *w.* = Resident during Winter Quarter, 1912; *sp.* = Resident during Spring Quarter, 1912.

FRESHMEN AND SOPHOMORES

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Acker, Robert B., <i>s</i>	A.B. (William Jewell c.) '06	St. Joseph, Mo.
Adams, Clarence Walter, <i>a w sp</i>	Senior c.	Olney
Adams, Eldridge Stevens, <i>s</i>	Kansas u.	Atchison, Kan.
Aeilts, Erko Samuel, <i>a w sp</i>	A.B. (Hope c.) '11	Little Rock, Ia.
Allen, Larned van Patten, <i>a</i>	Denison u.	Davenport, Ia.
Allen, Thomas Dyer, <i>a w sp</i>	Senior c.	Chicago
Allred, William Lyle, <i>a w sp</i>	A.B. (Brigham Young c.) '09	Fairview, Wyo.
Bacon, Charles Melville, <i>a w sp</i>	S.B. (Beloit c.) '10	Chicago
Baker, Arthur Earle, <i>sp</i>	Senior c.	Peoria
Baker, Hillier L., <i>a w sp</i>	Junior c.	Chicago
Bancroft, George William, <i>a w sp</i>	Colorado c.	Colorado Springs, Colo.
Barclay, Howard E., <i>a</i>	S.B. (Illinois Wesleyan u.) '11	Covell
Barnes, Milford Edwin, <i>a w sp</i>	A.B. (Monmouth c.) '05; S.B. (u. of Chicago) '11	Viola
Basinger, Harvey Raymond, <i>a w sp</i>	A.B. (Ohio State u.) '11	Pandora, O.
Bayne-Jones, Stanhope, <i>s</i>	A.B. (Yale u.) '10	New Orleans, La.
Becht, Frank Christian, <i>s</i>	S.B. (u. of Chicago) '06; Ph.D. (<i>Ibid.</i>) '09	Champaign
Bell, Margaret, <i>a w sp</i>	Senior c.	Chicago
Beyer, Arthur George, <i>a w sp</i>	Senior c.	Churubusco, Ind.
Bigelow, Albert Sumner, <i>sp</i>	Senior c.	Dodge Center, Minn.
Birkelo, Carl Christenson, <i>s a</i>	A.B. (Luther c.) '10	Humboldt, S.D.
Bjorgo, Carl Walter, <i>sp</i>	A.B. (Luther c.) '07	Red Wing, Minn.
Black, Paul, <i>a w sp</i>	Junior c.	Greenup
Booth, Hubert R., <i>s w</i>	Kansas State u.	Hamilton, Mo.
Borton, Elon Grant, <i>s</i>	A.B. (Greenville c.) '10	Flint, Mich.
Bowie, Eleazor Robinson, <i>s</i>	S.B. (u of Chicago) '10	Uniontown, Pa.
Brereton, Harold Linhoff, <i>a w sp</i>	S.B. (Grinnell c.) '09	Emmetsburg, Ia.
Brinkman, William F., <i>s w sp</i>	A.B. (State u. of Iowa) '10	Rolfe, Ia.
Brown, Robert Osgood, <i>a w sp</i>	Senior c.	Chicago
Chapman, Frank Amos, <i>s a w sp</i>	S.B. (Central c.) M.D. (St. Louis u.)	Chicago

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Christoph, Carl H., s	Junior c.	Chicago
Clark, James Cunningham, s	A.B. (Monmouth c.) '07 S.B. (u. of Chicago) '11	Monmouth
Clark, Vinton John, <i>a w sp</i>	A.B. (Simpson c.) '00; A.M. (<i>Ibid.</i>) '05	Chicago
Coffman, Carl Flory, <i>w sp</i>	A.B. (Northwestern u.) '11	Bridgewater, Va.
Cooper, Hugh Edwin, s	S.B. (u. of Chicago) '11	Peoria
Copps, Lyman Alden, <i>a w sp</i>	Carroll c.	Stevens Point, Wis.
Crafts, Earl, <i>s a w</i>	S.B. (u. of Chicago) '11	Ada, Ia.
Craig, Helen Frances, <i>s w sp</i>	A.B. (Asheville c. for Women) '01	Asheville, N.C.
Crosby, Elizabeth, <i>a w sp</i>	S.B. (Adrian c.) '11	Petersburg, Mich.
Cummings, Mabel, <i>a w sp</i>	Unclassified	Chicago
Curran, Lee Henry, s	Starling Medical s.	Columbus, O.
Curry, Louis T., <i>a w sp</i>	Senior c.	Chicago
Dearborn, Walter F., s	A.B. (Wesleyan u.) '00; Ph.D. (Columbia u.) '05	Chicago
Den Herder, Marinus J., <i>a w sp</i>	Hope c.	Grand Rapids, Mich.
Dewes, John, <i>a w</i>	Unclassified	Heusweiler, Germany
Dewey, Katherine Weller, s	u. of Heidelberg	Meadville, Pa.
Doty, Flavia M., <i>s a w sp</i>	S.B. (u. of Chicago) '10	Chicago
Drennan, Fred Miller, <i>s a w</i>	S.B. (u. of Chicago) '10; S.M. (<i>Ibid.</i>) '11	Rathdrum, Ida.
Drew, Arthur Wheeler, s	Unclassified	Brookings, S.D.
DuBois, Julien, <i>a w sp</i>	S.B. (Beloit c.) '10	Sauk Center, Minn.
Dunlap, Lawrence Glen, <i>a w</i>	Senior c.	Bath
Dyer, Lloyd Elmer, <i>a w</i>	A.B. (Maryville c.) '11	Mohawk, Tenn.
Eames, Melville J., <i>s a</i>	u. of Illinois	Blue Island
Edmonds, Devilla D., <i>a w sp</i>	Junior c.	Tina, Mo.
Edwards, George Daniell, <i>w sp</i>	S.B. (Hamilton c.) '10	Evanston
Edwards, Orville Logan, <i>a w sp</i>	Senior c.	Roadhouse
Elliott, Chester Howard, <i>a w sp</i>	A.B. (Westminster c.) '09	Cambridge, O.
Ellis, Prudence, <i>a w sp</i>	A.B. (Vassar c.) '10	Charles City, Ia.
Emge, Ludwig A., <i>a w sp</i>	Senior c.	Chicago
Engel, Charles Paul, <i>w</i>	Junior c.	Winona, Minn.
Erwin, Henry, <i>a w sp</i>	A.B. (u. of Michigan) '04	Chicago
Evans, David J., <i>sp</i>	Practitioner	Galesburg
Evans, Evan J., <i>a w</i>	Senior c.	Pipestone, Minn.
Fabella, José F., <i>w</i>	A.B. (Spo. Pomas u.) '05	Papaughan, P.I.
Farnham, Harry R., s	Ohio State u.	Chicago
Fawcett, George Gifford, <i>a w sp</i>	S.B. (u. of Idaho) '09	Moscow, Ida.
Fink, Emanuel, <i>a</i>	Senior c.	Chicago
Fisher, Arthur H., <i>a</i>	S.B. (u. of Chicago) '09	Ottawa
Fitch, Stewart J., s	Unclassified	Chicago
Fleming, Samuel Clifton, s	S.B. (u. of Chicago) '10	Franklin, Tenn.
Freeman, Edson A., <i>a w sp</i>	A.B. (Colgate u.) '08	Morristown, N.J.

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Funkhouser, Elmer, <i>a w sp</i>	Senior c.	Maukport, Ind.
Funkhouser, Taylor W., <i>a w sp</i>	Senior c.	Mattoon
Gauss, Harry, <i>a w sp</i>	Senior c.	Chicago
Gil, Augustine Henriquez, <i>a</i>	Senior c.	Madrid, Spain
Glynn, Robert R., <i>a w sp</i>	Drury c.	Springfield, Mo.
Godshall, William Vernon, <i>s</i>	Senior c.	Gratersford, Pa.
Grigsby, Roll O., <i>sp</i>	Junior c.	Blandinsville
Groot, James T., <i>sp</i>	Junior c.	Chicago
Grulee, Clifford Grosselle, <i>s a</i>	Practitioner	Chicago
Hall, Maude, <i>s</i>	A.B. (Drake u.) '09	Greeley, Colo.
Hommel, Placida R. V., <i>a w sp</i>	Junior c.	Neilsville, Wis.
Hannum, Frank Walter, <i>a w sp</i>	Senior c.	Bayfield, Wis.
Hardy, Faith Frances, <i>a w sp</i>	A.B. (Oberlin c.) '11	Grand Rapids, Mich.
Harries, Gordon B., <i>sp</i>	Junior c.	Park Ridge
Harris, Carl Norman, <i>a w sp</i>	A.B. (Wabash c.) '10	Wilmot, S.D.
Harris, Carleton Ward, <i>s w</i>	Ph.B. (Syracuse u.) '07	Syracuse, N.Y.
Harris, Charles Francis, <i>a w sp</i>	u. of Iowa	Mapleton, Ia.
Harris, Erle Myatt, <i>s</i>	u. of Nashville	Monroe, La.
Harris, Fred M., <i>a w sp</i>	Senior c.	Chicago
Harry, Jacob Roscoe, <i>a w sp</i>	Junior c.	Humboldt
Harvey, Homer A., <i>s</i>	A.B. (u. of Missouri) '09	Elks City, Kan.
Henderson, Robert Houston, <i>a w sp</i>	S.B. (Tarkio c.) '10	Clearfield, Ia.
Herdon, Richard Fleetwood, <i>s a w sp</i>	A.B. (u. of Illinois) '11; S.B. (u. of Chicago) '11	Springfield
von Hess, Charles L., <i>s</i>	S.B. (u. of Chicago) '10	New Ulm, Minn.
Higgins, Charles Paul, <i>sp</i>	(McGill u.) '95-'99	Vancouver, B.C.
Hirsch, Edwin Frederick, <i>a w sp</i>	A.B. (Northwestern u.) '10; A.M. (u. of Illinois) '11	Wauwatosa, Wis.
Hixson, Arthur Handley, <i>s a w sp</i>	S.B. (Denison u.) '07	Columbus, O.
Hjelle, Carl Alfred, <i>a w sp</i>	A.B. (Luther c.) '10	Decorah, Ia.
Huber, Harry L., <i>w sp</i>	Junior c.	Mattoon
Hughes, John R., <i>s</i>	Senior c.	Waukesha, Wis.
Hunter, Hobart R., <i>a w sp</i>	Senior c.	Fond du Lac, Wis.
Hunter, James Edward, <i>a w sp</i>	Junior c.	Somers, Mont.
Hunter, Paul Malbro, <i>a</i>	Junior c.	Blue Island
Isherwood, Paul Alonzo, <i>s</i>	Junior c.	West Chicago
Jackson, Richard Howard, <i>a</i>	S.B. (Bishop c.) '10	Bethany, La.
Jacobs, Frederick Casper, <i>s</i>	DePaul u.	Chicago
Jacobson, Clara, <i>s</i>	S.B. (u. of Chicago) '09; S.M. (<i>Ibid.</i>) '10	Chicago
Jacobson, Edmund, <i>a w sp</i>	S.B. (Northwestern u.) '08; A.M. (Harvard u.) '09; Ph. D. (<i>Ibid.</i>) '10	Chicago
Johnston, Charles Moman, <i>a w sp</i>	S.B. (u. of Idaho) '09	Idaho Falls, Ida.
Jones, Richard Newton, Jr., <i>a w sp</i>	Junior c.	Vaughansville, O.
Jones, William Soloman, <i>a w sp</i>	A.B. (u. of Georgia) '11	Jeffersonville, Ga.

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Jordan, Earle C., <i>a w sp</i>	Coe c.	Battle Creek, Ia.
Julian, W. Floyd, <i>sp</i>	S.B. (Purdue u.) '96	Chicago
Kearney, Harold Leslie, <i>s</i>	u. of Missouri	Columbia, Mo.
Keeton, Robert Wood, <i>s</i>	A.B. (u. of Chicago) '06	Meridian, Miss.
Kibler, Charles Samuel, <i>a w sp</i>	Ohio State u.	Newark, O.
Kidder, William Jerum, <i>s</i>	Northwestern u.	Elkins, W.Va.
King, Charles Edwin, <i>a w sp</i>	Ph.B. (Heidelberg u.) '08	Thornville, O.
King, Ivan W., <i>a w sp</i>	Unclassified	Charleston
Klein, Grover Cleveland, <i>w</i>	S.B. (Austin c.) '06	Small, Ida.
Kleinmann, Francis, <i>s</i>	Unclassified	Chicago
Knapp, Harry Grave, <i>s</i>	A.B. (u. of North Dakota) '10	Lisbon, N.D.
Koello, Olaf A., <i>s</i>	Junior c.	Lisbon, N.D.
Krost, Gerard N., <i>s a w sp</i>	Senior c.	Crown Point, Ind.
Lake, Gleason Chandler, <i>a w sp</i>	A.B. (Colorado c.) '07	Florence, Kan.
Langhorst, Arthur L., <i>a w sp</i>	Senior c.	Aurora
Lareau, Hector George, <i>s</i>	u. of Michigan	Chicago
Lauermann, Archibald William, <i>s</i>	Senior c.	West Bend, Wis.
Lawson, Gustave Walfred, <i>a w sp</i>	S.B. (DePaul u.) '11	Chicago
Leimbach, George Henry, <i>a</i>	Junior c.	Chestnut
Leviton, Max B., <i>sp</i>	S.B. (u. of Chicago) '08; M.D. (Rush Medical c.) '09	Chicago
Lewis, Bess Grace, <i>s</i>	S.B. (u. of California) '09	Los Gatos, Cal.
Lewis, Karl, <i>a w sp</i>	Junior c.	Grand Bridge
Lindsay, Edgar Charles, <i>a</i>	Unclassified	Naunau, Ida.
Long, Esmond Ray, <i>s a w sp</i>	S.B. (u. of Chicago) '11	Evanston
Long, Victor F., <i>a w sp</i>	Senior c.	La Porte, Ind.
Lorin, Albert, <i>a w sp</i>	A.B. (Gustavus Adolphus u.) '10	Winthrop, Minn.
Lovenstein, Rachel Leah, <i>a w sp</i>	A.B. (Richmond c.) '07; A.M. (<i>Ibid.</i>) '08	Richmond, Va.
Lowry, Robert Henry, <i>s a w sp</i>	Senior c.	Chicago
Luginbuhl, Christian Bateman, <i>a w sp</i>	Senior c.	Beaver Dam, O.
Lussky, Herbert O., <i>a w sp</i>	S.B. (u. of Chicago) '09	Ottawa
Lynn, Clarence E., <i>s a w sp</i>	S.B. (u. of Chicago) '11	Dubuque, Ia.
Marschall, Ernest, <i>s</i>	Practitioner	Chicago
Martin, Loyal Maxmillian, <i>s a</i>	S.B. (u. of Chicago) '10; S.M. (<i>Ibid.</i>) '11	Chicago
Matthewson, Guy C., <i>sp</i>	Junior c.	Battle Creek, Mich.
Maurer, Fred Henry, <i>a w sp</i>	Senior c.	Peoria
Mayers, Lawrence Hampton, <i>a w sp</i>	Junior c.	Millersburg, O.
Mikolaitis, Casimer John, <i>a</i>	Senior c.	Chicago
Miles, Lee Monroe, <i>a w sp</i>	S.B. (Grinnell c.) '09	Redfield, S.D.
Miller, Edwin M., <i>s</i>	A.B. (u. of Illinois) '10	Geneva
Mitchell, Mary, <i>a w sp</i>	S.B. (Parsons c.) '10	Fairfield, Ia.
Montgomery, James Gordon, <i>a w sp</i>	S.B. (u. of Idaho) '11	VanWert, O.

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Moore, Beveridge Harshaw, <i>w</i>	A.B. (u. of Chicago) '09	Tarkio, Mo.
Mulder, Jacob D., <i>sp</i>	Junior c.	Rock Valley, Ia.
Mustard, Harry James, <i>s</i>	S.B. (u. of Chicago) '10	Montesano, Wash.
McCullough, Clifford P., <i>a w sp</i>	Senior c.	Newport, Vt.
McKibben, Paul Stilwell, <i>a</i>	S.B. (Denison u.) '06; Ph.D. (u. of Chicago) '11	Chicago
McLain, Liva Charles, <i>a w sp</i>	S.B. (Oregon Agricultural c.) '08	Colorado City, Colo.
Nelson, Henry Walker, <i>a w sp</i>	A.B. (u. of Utah) '11	Ogden, Utah
Nelson, Oliver, <i>s</i>	A.B. (u. of Wisconsin) '07	Madison, Wis.
Newman, John Robert, <i>a</i>	S.B. (u. of Wisconsin) '10	Madison, Wis.
Newson, Thomas C., <i>s</i>	S.B. (u. of Mississippi) '09	Independence, Miss.
Orr, James Sydney, <i>s a w sp</i>	Senior c.	Mount Hope, Wis.
Ott, William Oscar, <i>s</i>	S.B. (Louisiana State u.) '10	Mt. Herman, La.
Parker, Bennett Roland, <i>a w sp</i>	Senior c.	Peoria
Patrick, Marcia, <i>s a sp</i>	Unclassified	Chicago
Perrin, Fleming Allen Clay	S.B. (u. of Chicago) '09	La Harpe
Pidot, Samuel L., <i>w sp</i>	Senior c.	Chicago
Pierce, Marion Louise, <i>a w sp</i>	S.B. (u. of Chicago) '10	Chicago
Pomeroy, Edward Stuart, <i>w sp</i>	Northwestern u.	Salt Lake City, Utah
Pond, Melbourne Jabez, <i>s a sp</i>	A.B. (Middlebury c.) '10	East Berkshire, Vt.
Porter, Charley Lyman, <i>a w</i>	S.B. (Illinois Wesleyan u.) '11	Mackinaw
Ramser, Harold Alfred, <i>a w sp</i>	Senior c.	Chicago
Rappaport, Benjamin, <i>a w sp</i>	Senior c.	Columbus, O.
Raulston, Burrell Otto, <i>s a w sp</i>	A.B. (Maryville c.) '09	Knoxville, Tenn.
Reagan, Rezin, <i>s</i>	S.B. (Earlham c.) '08	Rochester, Ind.
Reed, Clinton Virgil, <i>a w sp</i>	A.B. (Ripon c.) '10	Benton
Rees, George LeRoy, <i>a w sp</i>	Senior c.	Benson, Utah
Reinhardt, William R. L., <i>w sp</i>	Junior c.	Spokane, Wash.
Renfro, Tilburn Woods, <i>s</i>	u. of Washington	Seattle, Wash.
Richards, Joseph S., <i>s</i>	Unclassified	Plymouth
Riley, William H., <i>a</i>	A.B. (u. of Wisconsin) '09	Altoona, Wis.
Ringer, William Grubb, <i>a</i>	Senior c.	Chicago
Robb, William J., <i>s</i>	A.B. (Washburn c.) '10	Swanurek
Robbins, Zilpha, <i>a w sp</i>	A.B. (Knox c.) '10	Galesburg
Robertson, Clarence William, <i>a w sp</i>	A.B. (u. of North Dakota) '11	Park River, N.D.
Robison, Lyman Harold, <i>s w</i>	A.B. (u. of Utah) '10	Salt Lake City, Utah
Robison, William T., <i>a w sp</i>	Junior c.	Murfreesboro, Tenn.
Robuck, Samuel Verner, <i>s</i>	Denver u.	Kirksville, Mo.
Rohr, Frederick William, <i>a w sp</i>	S.B. (u. of Chicago) '11	Chicago
Rowe, Arthur N., <i>a w</i>	A.B. (u. of Minnesota) '02	Springfield, Minn.
Schwartz, Erich W., <i>s a w sp</i>	u. of Illinois	Cairo

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Schwarz, Frieda, <i>a</i>	Unclassified	San Francisco, Cal.
Schweitzer, Fred Conrad, <i>s a</i>	Drury c.	Springfield, Mo.
Seidenfeld, Leon Gross, <i>a w sp</i>	Junior c.	Spokane, Wash.
Sharp, William Barnard, <i>a w sp</i>	A.B. (u. of the South) '10	Nashville, Tenn.
Sheldon, Ralph Edward, <i>s</i>	Ph.D. (u. of Chicago) '08	Ithaca, N.Y.
Sherk, Elgin, <i>s</i>	Ph.B. (Syracuse u.) '10	La Salle, N.Y.
Shields, Claude Lester, <i>s</i>	A.B. (u. of Utah) '10	Salt Lake City, Utah
Sights, Warren P., <i>w sp</i>	Junior c.	Hopkinsville, Ky.
Slaght, Carrie Estelle, <i>a w sp</i>	Ph.B. (Kalamazoo c.) '10	Interlaken, N.Y.
Smith, Charles Hulbert, <i>a w sp</i>	Junior c.	Grand Forks, N.D.
Smith, Fred, <i>a w sp</i>	Junior c.	Yale
Smith, William B., <i>sp</i>	Unclassified	Oakland, Cal.
Snapp, Carl Foster, <i>a w sp</i>	Junior c.	Findley
Snorf, Lowell Delford, <i>a w sp</i>	Senior c.	Verona, O.
Snow, Perry G., <i>s</i>	A.B. (u. of Utah) '09	Manti, Utah
Sommer, Sylvan E., <i>w sp</i>	Junior c.	Chicago
South, Frank Lee, <i>a</i>	Unclassified	Bald Hill, Pa.
Steiner, Irving William, <i>s</i>	Junior c.	Independence, Wis.
Stephan, William Henry, <i>a w sp</i>	Junior c.	Sterling
Stutsman, William Harold, <i>s a w sp</i>	Senior c.	Hymera, Ind.
Sullivan, Michael Joseph, <i>w</i>	Unclassified	Jackson, Neb.
Sullivan, Ralph Charles, <i>s</i>	St. Ignatius c.	Chicago
Sutherland, Harry N., <i>w</i>	A.B. (Grand Island c.) '99	Madison, Wis.
Swan, Alfred H., <i>s</i>	S.B. (u. of Chicago) '11	Chicago
Sweaney, Henry Claris, <i>w sp</i>	Junior c.	Eugene, Ore.
Swearingen, Forrest Custer, <i>a w sp</i>	S.B. (Coe c.) '10	Sac City, Ia.
Swim, William Allen, <i>s a w sp</i>	Junior c.	Millersville
Thomle, Ottar A., <i>a w sp</i>	S.B. (Washington State c.) '07	Stanwood, Wash.
Thomson, David, <i>s a w sp</i>	A.B. (Lake Forest c.) '09	Chicago
Tillmans, Ernest, <i>s a w sp</i>	A.B. (Elmhurst c.)	Sigourney, Ia.
Troxell, Emmett C., <i>a w sp</i>	Senior c.	Mulberry, Ind.
Unger, Leon, <i>a w sp</i>	Junior c.	Chicago
Van Cott, Earle Raymond, <i>a w sp</i>	Senior c.	Chicago
Vaughan, Lynn Brian, <i>a w sp</i>	u. of Illinois	Hurley, S.D.
Vaughan, Orley Mason, <i>s</i>	Unclassified	Covert, Mich.
Vruwink, John, <i>w sp</i>	Senior c.	Grand Rapids, Mich.
Wampler, Fred Jacob, <i>s</i>	A.B. (Bridgewater c.) '08	Harrisonburg, Va.
Watkin, Clifford Ray, <i>a w sp</i>	Senior c.	Parkersburg, Ia.
Wells, Sumner Merrill, Jr., <i>a w sp</i>	Senior c.	Grand Rapids, Mich.
Werner, Roy G., <i>s</i>	A.B. (Ohio State u.) '09	Columbus, O.
Westland, Erich W., <i>a w sp</i>	Junior c.	Chicago

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Wharton, Russell Owen, <i>a w sp</i>	A.B. (Lake Forest c.) '10	Bringhurst, Ind.
White, Adeline, <i>w</i>	L.B. (u. of Wisconsin) '99	Chicago
White, Paul Amos, <i>s</i>	Ph.B. (u. of Chicago) '08	Grand Rapids, Mich.
Wise, Earle DeWitt, <i>a w sp</i>	Senior c.	Champaign
Wolfram, Phillip H., <i>s</i>	Senior c.	Chicago
Woodward, Vernie Emma, <i>s</i>	A.B. (u. of Michigan) '10	Meriden, Conn.
Yeaton, Walter J., <i>s</i>	A.B. (u. of Minnesota) '09	Danville
MEN—220	WOMEN—20	TOTAL—240

SPECIAL STUDENTS TAKING MEDICAL COURSES

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Allee, Warter Clyde, <i>w sp</i>	S.B. (Earlham c.) '08; S.M. (u. of Chicago) '10	Bloomington, Ind.
Allyn, Harriet, <i>a sp</i>	A.B. (Mt. Holyoke c.) '05	New London, Conn.
Atkins, Kenneth Noel, <i>s a w sp</i>	Ph.B. (Wesleyan u., Conn.) '08; A.M. (u. of Chicago) '10	New London, Conn.
Atwood, Winifred McKenzie, <i>w sp</i>	A.B. (Cornell c.) '07; S.M. (u. of Chicago) '11	Mt. Vernon, Ia.
Ayer, Fred Carleton, <i>s</i>	S.B. (Upper Iowa u.) '02; S.M. (Georgetown u.) '05	Tempe, Ariz.
Barton, Arthur Willis, <i>s</i>	A.B. (u. of Washington) '02	Abilene, Kan.
Breihan, Ernest Winfred, <i>s</i>	S.B. (u. of Texas) '05; S.M. (<i>Ibid.</i>) '07	Austin, Tex.
Bruns, William Henry, <i>s</i>	Unclassified	St. Henry, O.
Caldwell, George H., <i>s</i>	M.D. (u. of Michigan) '03	Seaforth, Ont.
Caldwell, Joseph Stuart, <i>a w sp</i>	A.B. (Maryville c.) '02; A.M. (u. of Chicago) '04	Nashville, Tenn.
Canouse, Lemoyne Kirby, <i>s</i>	Senior c.	Chicago
Carry, Edward Harrison, <i>s</i>	Unclassified	Galveston, Tex.
Class, Elva Nichols, <i>a w sp</i>	Senior c.	Chicago
Cowdry, Edmund Vincent, <i>a w</i>	A.B. (u. of Toronto) '09; Ph.D. (u. of Chicago) '11	Chicago
Craney, Mary Emily, <i>s</i>	Unclassified	Chicago
Cruzen, Roy Ellis, <i>a</i>	Junior c.	Walnut Hill
Curme, George Oliver, <i>s</i>	S.B. (Northwestern u.) '09	Evanston
DePue, Ray Vincent, <i>s</i>	Unclassified	Knoxville, Tenn.
Dickey, Helen, <i>a</i>	A.B. (u. of Pennsylvania) '02	Cleveland, O.
Duncan, Adelaide, <i>s</i>	Unclassified	Chicago
Eckerson, Sophia, <i>w</i>	Ph.D. (u. of Chicago) '11	Mt. Vernon, N.Y.
Edwards, Alice Leora, <i>s</i>	Unclassified	Corvallis, Ore.
Eiss, Daniel Webster, <i>s</i>	Unclassified	Chicago
Emley, Samuel Charles, <i>s</i>	A.B. (u. of Kansas) '99; A.M. (<i>Ibid.</i>) '09; M.D. (Rush Medical c.) '02	Great Bend, Kan.
Farrar, Edith Barnes, <i>s</i>	A.B. (Newcombe c.) '06	New Orleans, La.
Ferriols, Vincent, <i>s</i>	Unclassified.	Zambales, P.I.

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
French, Harley Ellsworth, <i>s</i>	A.B. (Washington State c.) '02; M.D. (Northwestern u.) '06	Delphi, Ind.
Glascocock, S. S., <i>s</i>	Senior c.	Muncie, Ind.
Gleichauf, Leo S., <i>w sp</i>	Senior c.	Cleveland, O.
Gouldin, Layton, <i>s</i>	S.B. (Cornell c.) '10	Lake City, Ia.
Gregg, Fred Merriam, <i>w sp</i>	S.B. (Ohio Northern u.) '94	Paree, Neb.
Henry, Gladys Rowena, <i>s</i>	S.B. (u. of Nebraska) '00; M.D. (Johns Hopkins u.) '04	Chicago
Hill, James Charlesworth, <i>s</i>	A.B. (Monmouth c.) '02	Newton, Ia.
Holmes, Harriet Fay, <i>a w sp</i>	A.B. (Vassar c.) '95	Chicago
Hommon, Charles Curtis, <i>s</i>	Unclassified	Hilliard, O.
Horner, Letta D., <i>a w</i>	Senior c.	Redfield, Ia.
Humphrey, Edmund Charles, <i>s</i>	S.B. (Westminster c.) '09	Warsaw, Mo.
Hunter, Walter Samuel, <i>w</i>	A.B. (u. of Texas) '10	Saginaw, Tex.
Hyman, Libbie H., <i>a w sp</i>	S.B. (u. of Chicago) '10	Chicago
Jenkins, Bernice Mary, <i>s</i>	A.B. (Southern c.) '01; A.B. (u. of Nashville) '06	Forsythe, Ga.
Johnson, Harry Miles, <i>s</i>	A.B. (Missouri Valley c.) '09	Nelson, Mo.
Kirn, Gerald Williard, <i>s</i>	Ph.B. (Northwestern u.) '09	Naperville
Kite, George Lestor, <i>w sp</i>	S.B. (u. of Chicago) '08	Hood, Va.
Knight, Harry Obediah, <i>s</i>	A.B. (Southwestern u.) '01	Galveston, Tex.
Knight, Lee Irving, <i>w sp</i>	A.B. (u. of Illinois) '01; S.B. (u. of Chicago) '09	Urbana
Koch, Fred Conrad, <i>s a w sp</i>	S.B. (u. of Illinois) '99; S.M. (<i>Ibid.</i>) '00	Chicago
Koch, Matilda, <i>s w sp</i>	A.B. (u. of Chicago) '10	St. Louis, Mo.
Koontz, Amos Ralph, <i>s</i>	S.B. (u. of Chicago) '10	Marksville, Va.
Ladd, Inez Matilda, <i>a</i>	L.B. (u. of Michigan) '93	Chicago
Lane, Michael, <i>s</i>	S.B. (u. of Chicago) '07	Chicago
Lebovitz, Jacob, <i>s</i>	Junior c.	Chicago
Leech, Paul Nicholas, <i>a w sp</i>	A.B. (Miami u.) '10	Oxford, O.
Leigh, Townes Randolph, <i>s</i>	A.B. (National Normal u.) '02	Paris, Tex.
Melka, Anna Marie, <i>w sp</i>	Senior c.	Chicago
Miller, Hilda, <i>w sp</i>	Junior c.	Tobias, Neb.
Morey, Derexa Eleanor, <i>s</i>	A.B. (Vassar c.) '11	Hamilton, O.
Moss, Ida Belle, <i>a</i>	A.B. (Oberlin c.) '06	Chicago
Mostrom, Heming T., <i>s</i>	Senior c.	Chicago
Mothershead, Amy Morris, <i>s</i>	S.B. (Wellesley c.) '91	Chicago
Munger, Claude Worvell, <i>w</i>	Junior c.	Chicago
McArthur, Charles George, <i>s sp</i>	A.B. (Oberlin c.) '08; A.M. (u. of Chicago) '08	Bowmansville, N.Y.
McBeath, Thomas Luther, <i>s</i>	Unclassified	Kirksville, Mo.
McC Campbell, Eugene Franklin, <i>s</i>	S.B. (u. of Chicago) '06; Ph.D. (<i>Ibid.</i>) '11	Columbus, O.
McClenahan, Francis Mitchell, <i>s</i>	A.B. (Tarkio c.) '96	Alleghany, Pa.
McGowan, John Vincent, <i>s</i>	Unclassified	Hartwell, O.
McKnight, Earle B., <i>a</i>	Junior c	Fond du Lac, Wis.

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Narkelis, Starys, <i>w</i>	Junior c.	Chicago
Neill, Hazel Louise, <i>w sp</i>	A.B. (u. of Minnesota) '05	Sibley, Ia.
Nesbit, Nelle, <i>a w sp</i>	S.B. (u. of Missouri) '09; A.B. (<i>Ibid.</i>) '10	Cameron, Mo.
Nicely, William Emerson, <i>s</i>	A.B. (Princeton u.) '98; A.M. (<i>Ibid.</i>) '99; M.D. (u. of Pennsylvania) '07	Dayton, Ind.
Nichols, Elizabeth Louise, <i>s</i>	A.B. (Mt. Holyoke c.) '09	New Haven, Conn.
Norcross, Katherine, <i>a sp</i>	A.B. (Wellesley c.) '09	Wellesley Hills, Mass.
Obenchain, Jeannette, <i>sp</i>	Ph.B. (u. of Chicago) '06	Miami, Fla.
O'Connor, Jessie, <i>s</i>	Unclassified	Chicago
Owen, Robert Bishop, <i>w sp</i>	A.B. (u. of Chicago) '10	Chicago
Parker, Charles Oscar, <i>s</i>	Senior c.	Beardston
Patterson, Frank Norton, <i>s</i>	A.B. (u. of New Brunswick) '02; A.M. (<i>Ibid.</i>) '04; Ph.D. (<i>Ibid.</i>) '08	Colland, Mich.
Perrin, Fleming A. C., <i>a w</i>	Ph.B. (u. of Chicago) '09	La Harpe
Peterson, Agnes, <i>a sp</i>	Unclassified	Chicago
Pomeroy, Edward Stuart, <i>a</i>	Northwestern u.	Salt Lake City, Utah
Prindeville, Edith, <i>a</i>	Ph.B. (u. of Chicago) '11	Chicago
Rasmussen, Andrew T., <i>s</i>	Unclassified	Spring City, Utah
Rosenheim, Ethel, <i>sp</i>	Senior c.	Chicago
Ross, William Lyttle, Jr., <i>a</i>	Junior c.	Omaha, Neb.
Sackett, Walter George, <i>s</i>	S.B. (u. of Chicago) '02	Columbus, O.
Saunders, Charles Winston, <i>s</i>	S.B. (u. of Missouri) '07	Shreveport, La.
Scott, Ernest Lyman, <i>s</i>	A.B. (Ohio Wesleyan u.) '02; S.M. (u. of Chicago) '11	Bay City, Mich.
Sherman, Hope, <i>a</i>	A.B. (Smith c.) '07	Brookline, Mass.
Slye, Maud, <i>s a sp</i>	A.B. (Brown u.) '99	St. Paul, Minn.
Smith, Harry Arthur, <i>a</i>	Unclassified	North Platt, Neb.
Smith, Laura Hattie, <i>s</i>	Unclassified	Dover, N.H.
Souther, Nathalie Ben, <i>sp</i>	A.B. (Lawrence c.) '09	Mauston, Wis.
Speerbrecher, Henry, <i>s</i>	Senior c.	Milwaukee, Wis.
Spohn, Adelaide, <i>a w</i>	S.B. (u. of Chicago) '08	Chicago
Stephany, Carl Otto, <i>s</i>	Senior c.	Milwaukee, Wis.
Stephanson, Joseph Clark, <i>w sp</i>	S.B. (u. of Chicago) '07	Sheridan, Ind.
Stoland, Ole O., <i>a w sp</i>	A.B. (u. of South Dakota) '05	Vermilion, S.D.
Swift, Charles Henry, <i>a w sp</i>	S.B. (u. of Chicago) '06; M.D. (Rush Medical c.) '10	Chicago
Sykes, George Francis, <i>s</i>	Ph.B. (Brown u.) '09; A.M. (<i>Ibid.</i>) '10	Suffield, Conn.
Tatum, Arthur Lowrie, <i>s</i>	S.B. (Pennsylvania c.) '05; S.M. (Iowa State c.) '07	Boulder, Colo.
Tansey, Vivian Ouray, <i>a</i>	Senior c.	Chicago
Taylor, Katherine E., <i>s</i>	S.B. (u. of Wyoming) '10; A.B. (<i>Ibid.</i>) '11	Sherman, Wyo.
Tashiro, Shiro, <i>a w sp</i>	S.B. (u. of Chicago) '09	Togo, Japan

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Todd, Clare Chrisman, <i>s sp</i>	A.B. (Washington State c.) '06	Pullman, Wash.
Van de Erve, John, <i>s</i>	A.B. (Hope c.) '95; A.M. (Princeton u.) '97; D.B. (<i>Ibid.</i>) '99; M.D. (Rush Medical c.) '11	Libertyville
Van Hoesen, Elizabeth, <i>s</i>	Unclassified	Chicago
Vehe, Karl LeRoy, <i>s</i>	Unclassified	Chicago
Vosburg, Isabella Marion, <i>a w sp</i>	A.B. (Mt. Holyoke c.) '10	Rochester, N.Y.
Webb, Hanor A., <i>a w sp</i>	A.B. (u. of Nashville) '08; S.M. (u. of Chicago) '11	Nashville, Tenn.
Westland, Edward Walter, <i>s</i>	Junior c.	Chicago
White, Katherina, <i>sp</i>	Junior c.	Chicago
Whitenton, Robert Oscar, <i>s</i>	A.B. (u. of Nashville) '06	Humboldt, Tenn.
Wilder, Russell M., <i>sp</i>	S.B. (u. of Chicago) '08; M.D. (Rush Medical c.) '10	Chicago
Williams, Robert R., <i>w sp</i>	S.B. (u. of Chicago) '07; S.M. (<i>Ibid.</i>) '08	Ottawa, Kan.
Williamson, John T., <i>a</i>	S.B. (Kalamazoo c.) '11	Jamaica, W.I.
Wylie, Harry Hanes, <i>a</i>	A.B. (Muskingum c.) '05	New Concord, O.
Yeager, William Stanton, <i>s</i>	Unclassified	Mt. Vernon, Mass.
MEN—78	WOMEN—39	TOTAL—117

JUNIOR CLASS

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Allaben, Gerald Randolph, <i>a w sp</i>	S.B. (u. of Wisconsin) '11	Rockford
Barth, John Joseph, <i>w sp</i>	u. of Michigan	Escanaba, Mich.
Bekhit, Botros Birgis, <i>s a</i>	Kasr-El Med. c.	Chicago
Berquist, William G., <i>a</i>	A.B. (u. of Nebraska) '11	Bushnell, Neb.
Blake, Charles Robert, <i>a w</i>	S.B. (Cornell c.) '09	Mediapolis, Ia.
Brown, Andrew Dabbie, <i>s</i>	S.B. (u. of Nebraska)	Omaha, Neb.
Brook, Clyde, <i>s</i>	A.B. (u. of Missouri) '05	St. Louis, Mo.
Buckman, Edward, <i>a w sp</i>	S.B. (u. of Chicago) '11	Chicago
Burke, Edmund Joseph, <i>a w sp</i>	S.B. (u. of Chicago) '11	La Salle
Callantine, Blythe Jackson, <i>a w sp</i>	S.B. (u. of Chicago) '11	Peru, Ind.
Clarke, James Cunningham, <i>a w sp</i>	A.B. (Monmouth c.) '07	Monmouth
Coleman, George Howell, <i>a w sp</i>	S.B. (u. of Chicago) '11	Chicago
Cook, Jesse D., <i>a w sp</i>	A.B. (u. of Kansas) '11	Topeka, Kan.
Cooper, Hugh E., <i>w sp</i>	S.B. (u. of Chicago) '11	Peoria
Cornell, Corwin Schaffner, <i>a w sp</i>	A.B. (u. of Iowa) '09	Knoxville, Ia.
Craig, Helen Frances, <i>a w sp</i>	A.B. (Asheville c. for Women) '01	Asheville, N.C.
Culver, Harry, <i>a w sp</i>	S.B. (u. of Wisconsin) '10	Appleton, Wis.
Davis, Nathan Smith, <i>a w sp</i>	A.B. (Harvard u.) '09	Chicago
Drennan, Fred Miller, <i>a</i>	S.B. (u. of Chicago) '10	Rathburn, Ida.
Dunlap, George Wendell, <i>a w sp</i>	S.B. (u. of Chicago) '11	Galesburg
Easton, Sidney Harris, <i>a w sp</i>	S.B. (u. of Chicago) '10	Peoria

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Edmunds, David Galloway, <i>a w sp</i>	A.B. (u. of Utah) '11	Wales, Utah
Falk, Victor Sofus, <i>a w sp</i>	S.B. (u. of Wisconsin) '11	Stoughton, Wis.
Fowler, John Denison, <i>a w sp</i>	A.B. (u. of Rochester) '08	Rochester, N.Y.
Fowler, Lillian Edith, <i>a w sp</i>	S.B., S.M. (u. of Kansas) '11	Lawrence, Kan.
Garabedian, Garabed A. Z., <i>a w sp</i>	A.B. (u. of Illinois) '10	Constantinople, Turkey
Giltner, Ward, <i>s</i>	D.V.M. (Cornell u.); S.M. (Alabama Polytechnic inst.)	East Lansing, Mich.
Gould, Lyman Keith, <i>a w sp</i>	S.B. (u. of Chicago) '10	Rochester, Ind.
Greer, Virgil David, <i>a w sp</i>	S.B. (u. of Michigan) '11	Mt. Vernon
Hackett, Martha, <i>a w sp</i>	A.B. (Western c.) '07	Ft. Wayne, Ind.
Hamilton, Edwin S., <i>a w sp</i>	S.B. (u. of Illinois) '11	Kankakee
Heaton, William D., <i>a w sp</i>	S.B. (u. of Nebraska) '11	Wahoo, Neb.
Heidner, Albion Henry, <i>a w sp</i>	S.B. (u. of Wisconsin) '11	West Bend, Wis.
Hensinkveld, Henry John, <i>a w sp</i>	A.B. (Hope c.) '09	Fulton
Hoff, Joachim J., <i>a w sp</i>	A.B. (u. of Chicago) '06	Chicago
Howell, Katharine Myrta, <i>a w sp</i>	A.B. (u. of Chicago) '05	Chicago
Hunt, Verne Carleton, <i>a w sp</i>	S.B. (u. of Iowa) '11	Crookston, Minn.
Hyde, William George, <i>a w sp</i>	u. of Wisconsin	Racine, Wis.
Jacobson, Clara, <i>a w sp</i>	S.B., S.M. (u. of Chicago) '10	Chicago
Jameson, George V., <i>a w sp</i>	u. of Chicago	Seattle, Wash.
Johnson, Earle George, <i>a w sp</i>	A.B., A.M. (u. of Nebraska) '10	Grand Island, Neb.
Jolley, James Frank, <i>a w sp</i>	A.B. (u. of Kansas)	Topeka, Kan.
Koello, Olaf A., <i>a w sp</i>	u. of Chicago	Lisbon, N.D.
Kuhns, Ralph Henry, <i>a w sp</i>	S.B. (u. of Chicago) '11	Chicago
Le Compte, Edward Dexter, <i>a w sp</i>	A.B. (u. of Utah) '11	Park City, Utah
Lewis, Bess G., <i>a w sp</i>	S.B. (u. of California) '09	Los Gatos, Cal.
Luce, Rey Vincent, <i>a w sp</i>	A.B. (u. of Wisconsin) '09	Chilton, Wis.
Lusk, Perry Gilbert, <i>a w sp</i>	u. of Chicago	Watertown, S.D.
Maple, Frank Fulton, <i>w sp</i>	A.B. (u. of Kansas) '11	Kansas City, Mo.
Martin, Loyal, <i>a w sp</i>	S.B., S.M. (u. of Chicago) '11	Chicago
Martineau, Joseph L., <i>a w sp</i>	A.B. (u. of North Dakota) '11	St. John, N.D.
Mathers, George Schroder, <i>a w sp</i>	S.B. (u. of Chicago) '11	Prosper, Tex.
McBride, Linn, <i>a w sp</i>	A.B. (u. of Missouri) '11	Webb City, Mo.
McIntire, Homer M., <i>a w sp</i>	A.B. (Park c.) '09	Winchester, O.
McMeel, Eugene James, <i>a w sp</i>	u. of Kansas	Merde, Kan.
McReynolds, Ralph, <i>a w sp</i>	S.B. (u. of Chicago) '10	Knox City, Mo.
McWhorter, Golder L., <i>a w sp</i>	S.B. (u. of Chicago) '11	Burt, Ia.
Merrill, Harry Palmer, <i>a w sp</i>	S.B. (McMinnville c.) '08	Albany, Ore.
Miller, Edwin Morton, <i>a w sp</i>	A.B. (u. of Illinois) '10	Geneva
Mitchell, James Herbert, <i>a w sp</i>	S.B. (u. of Chicago) '07	Chicago

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Mitchell, Ralph Kenneth, <i>a w sp</i>	S.B. (u. of Wisconsin) '11	Milwaukee, Wis.
Moon, Virgil H., <i>a w sp</i>	A.B., S.M. (u. of Kansas) '10-'11	Emporia, Kan.
Mustard, Harry J., <i>a w sp</i>	S.M. (u. of Chicago) '11	Montesano, Wash.
Nelson, Oliver Otto, <i>a w sp</i>	A.B. (u. of Wisconsin) '07	Madison, Wis.
Pamment, G. G., <i>s</i>	S.B. (Adrian c.) '09	Waukegan
Patrick, Marcia, <i>a w sp</i>	u. of Chicago	Chicago
Pettit, Roswell Talmage, <i>a w sp</i>	S.B. (u. of Chicago) '08	Ottawa
Pratt, George Peyton, <i>a w sp</i>	S.B. (u. of Nebraska) '10	Lincoln, Neb.
Quigley, William Joseph, <i>a w sp</i>	S.B. (u. of Wisconsin) '11	Antigo, Wis.
Rathbun, Fred. J., <i>a w sp</i>	S.B. (Knox c.) '09	New Windsor
Rathbun, George L., <i>a w sp</i>	S.B. (Knox c.) '08	New Windsor
Reagan, Rezin, <i>a w sp</i>	S.B. (Earlham c.) '08	Rochester, Ind.
Renfro, Tilburn Woods, <i>a w sp</i>	u. of Washington	Seattle, Wash.
Rinderspacher, Carl Otto, <i>a w sp</i>	S.B. (u. of Chicago) '11	Hastings, Neb.
Ross, Fayette Boyson, <i>a w sp</i>	u. of Chicago	Akron, Ia.
Rowe, Arthur N., <i>a w sp</i>	A.B. (u. of Minnesota) '02	Springfield, Minn.
Smith, Robert Lewis Irvine, <i>s a sp</i>	S.B. (u. of Chicago) '10	Hemet, Cal.
Steiner, Irving W., <i>a w sp</i>	u. of Chicago	Independence, Wis.
Stevens, Herman Campbell, <i>s a w sp</i>	A.B. (u. of Michigan) '01; Ph.D. (Cornell u.) '05	Elyria, O.
Sutch, Yorke B., <i>s a w sp</i>	u. of Chicago	Chicago
Swackhamer, Chester Ray, <i>a w sp</i>	S.B. (u. of Chicago) '10	Union, Ore.
Swan, Alfred H., <i>a</i>	u. of Chicago	Chicago
Ware, James Gatrell, <i>a w sp</i>	A.B. (u. of Missouri) '11	Shanghai, China
Wampler, Fred Jacob, <i>a w sp</i>	A.B. (Bridgewater c.) '11	Harrisburg, Va.
Weidling, Walter Henry, <i>a w sp</i>	S.B. (u. of Chicago) '11	Topeka, Kan.
White, Edwin C., <i>w sp</i>	A.B. (u. of Kansas) '11	Kansas City, Mo.
Winholt, Walter Fritz, <i>a w sp</i>	S.B. (u. of Wisconsin) '11	Chicago
Wiseley, Allen N., <i>a w sp</i>	S.B. (Ohio Northern u.) '06	Ada, O.
Woodruff, Rolland Cecil, <i>a w sp</i>	S.B. (Grand Island c.) '09	Walla Walla, Wash.
Woods, Donald K., <i>a w sp</i>	A.B. (u. of North Dakota) '11	Grand Forks, N.D.
Zemer, Stanley Gillum, <i>a w sp</i>	Ohio State u.	Napoleon, O.

SENIOR CLASS

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Abelio, George, <i>s a w</i>	S.B. (u. of Chicago) '10	Chicago
Abraham, Vestal Raul, <i>s a w sp</i>	Senior c.	Forest Grove, Ore.
Acker, Robert Booth, <i>s a w</i>	A.B. (William Jewel c.) '06	St. Joseph, Mo.
Allard, Louis William, <i>s a w</i>	S.B. (u. of Wisconsin) '10	Laurel, Mont.
Allen, Larned van Patten, <i>a w sp</i>	Senior c.	Davenport, Ia.
Arkin, Aaron, <i>s a w sp</i>	S.B. (u. of Chicago) '09; A. M. (u. of Wisconsin) '10	Chicago

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Axley, Albert August, <i>s a w</i>	S.B. (u. of Wisconsin) '10	Cleveland, Wis.
Bach, Irwin W., <i>a w sp</i>	A.B. (u. of Illinois) '10; A.M. (<i>Ibid.</i>) '08	Urbana
Banker, Edw. Cleveland, <i>s a w</i>	A.B. (u. of Kansas) '10	Hot Springs, Ark.
Bartlett, Frank Kaiser, <i>s w sp</i>	Senior c.	Ogden, Utah
Belgum, Hendrick Nelson, <i>s</i>	S.B. (u. of Marquette) '09	Valders, Wis.
Berkman, David M., <i>a w sp</i>	S.B. (u. of Minnesota) '09	Rochester, Minn.
Bisdorn, Fredericus Augustus, <i>s</i>	S.B. (u. of Chicago) '10	The Hague, Netherlands
Bloomfield, Mat, <i>s a w</i>	S.B. (u. of Chicago) '10	Oklahoma City, Okla.
Booth, Herbert Radcliffe, <i>s a w</i> <i>sp</i>	u. of Kansas	Hamilton, Mo.
Bowman, J. Craig, <i>a w sp</i>	S.B. (u. of Chicago) '10	Upper Sandusky, O.
Brandel, Harry McPherson, <i>s a</i> <i>w sp</i>	A.B. (u. of Wisconsin) '10	Oshkosh, Wis.
Brown, Andrew Dabbie, <i>s</i>		Omaha, Neb.
Brown, John Zimmerman, <i>s</i>	A.B. (u. of Utah) '06	Pleasant Grove, Utah
Burkholder, Charles Augustus, <i>s a w</i>	Junior c.	Chicago
Caldwell, Fred Cornelius, <i>a w sp</i>	S.B. (u. of Chicago) '09	Chicago
Carr, Claude William, <i>a w sp</i>	S.B. (State u. of Iowa) '10	Maquoketa, Ia.
Cary, Eugene, <i>s a w</i>	Junior c.	Chicago
Corper, Harry John, <i>s</i>	S.B. (u. of Chicago) '06	Chicago
Cory, F. J., <i>w</i>	Practitioner	Chicago
Crittenden, Alden Larue, <i>s a</i>	S.B. (Iowa c.) '07	Humboldt, Ia.
Crouch, Warner Latta, <i>s a w</i>	Knox c.	Belle Prairie
Dale, Philip Marshall, <i>a w sp</i>	Lincoln a.	Greenwood, Neb.
Davis, Benjamin Franklin, <i>s a w</i>	A.B. (u. of Wisconsin) '07; Ph.D. (u. of Chicago) '10	Chicago
Davis, George A., <i>s a w sp</i>	A.B. (Colorado c.) '08	Apland, Neb.
DeMotte, Ray James, <i>s a w sp</i>	A.B. (u. of Illinois) '03	Chicago
Dewey, Katherine, <i>a w sp</i>	Geneva, Switzerland, u.	Chicago
Emerson, Clarence, <i>s</i>	S.B. (u. of Nebraska) '06; Ph.D. (u. of Nebraska) '09	Lincoln, Neb.
Eskey, Clifford Rush, <i>s a w</i>	Junior c.	Tuscola
Fabella, José F., <i>a sp</i>	A.B. (Sto. Tomas u.) '05	Pagsanglon, Log., P.I.
Fargo, Merchant Charles, <i>a w sp</i>	A.B. (u. of Nebraska) '07	Hot Springs, S.D.
Fishbein, Morris, <i>a w sp</i>	Junior c.	Indianapolis, Ind.
Fisher, Arthur H., <i>a w sp</i>	S.B. (u. of Chicago) '09	Ottawa
Fox, Paul C., <i>s a w sp</i>	Senior c.	Dayton, O.
Gaarde, Fred William, <i>a w</i>	S.B. (u. of Chicago) '09	Minden, Neb.
Galloway, Thomas Cyrus, <i>s a w</i>	S.B. (u. of Chicago) '09	Weiser, Ida.
Goettsch, Arthur, <i>a w sp</i>	S.B. (u. of Chicago) '09	Davenport, Ia.
Gordon, R. A., <i>s w</i>	Practitioner	Field, B.C.
Gray, W. S., <i>a</i>	Practitioner	Chicago

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Greer, James Richard, <i>a w</i>	S.B. (u. of Chicago) '06	Chicago
Hall, Maude, <i>s a w</i>	A.B. (Drake u.) '09	Greeley, Colo.
Halsey, Richard, <i>a w sp</i>	Senior c.	Oshkosh, Wis.
Hampton, John Werton, <i>s a w</i>	A.B. (u. of Texas) '10	Forreston, Tex.
Hanson, J. H., <i>s</i>	Practitioner	Granfield, Okla.
Haroldson, Olaf, <i>s a w</i>	S.B. (u. of Chicago) '10	Northwood, N.D.
Hatton, Edw. Howard, <i>s a w</i>	S.B. (u. of Wisconsin) '09	Peru
Hayden, Clara, <i>a</i>	Practitioner	Eldon, Ia.
Heumann, Johann Martin Fried- erich, <i>s a w sp</i>	S.B. (Grand Island c.) '08	Chicago
Hewin C. F., <i>w</i>	Practitioner	Loda
Hewitt, William Francis, <i>s a w</i>	S.B. (u. of Chicago) '07	Chicago
Hibbard, Sherman Blaine, <i>s a w</i>	S.B. (u. of Nebraska) '10	Oregon, Mo.
Hillas, W. J., <i>w</i>	Practitioner	Chattanooga, Tenn.
Hillman, Charles Clark	S.B. (u. of Arkansas) '07	New Orleans, La.
Holmes, Claude Du Val, <i>s a w</i>	A.B. (u. of Indiana) '08; A.M. (u. of Indiana) '10	Lebanon, Ind.
Howard, Ralph B., <i>s a w sp</i>	Ph.B. (Kalamazoo c.) '06	South Bend, Ind.
Hryniewicki, Stephen, <i>a</i>	Practitioner	Chicago
Hughes, Herbert, <i>s</i>	S.B. (u. of Montana) '05	Portland, Ore.
Hughes, John Riley, <i>s a w sp</i>	Senior c.	Waukesha, Wis.
Hurst, W. Randolph, <i>s a w</i>	S.B. (Union Christian c.) '06	Hutsonville
Hyde, Ida H., <i>s</i>	A.B. (Cornell c.) '91; Ph.D. (u. of Heidelberg) '36	Lawrence, Kan.
Jackson, Dennis Emerson, <i>s</i>	A.B. (u. of Indiana) '04	Linton, Ind.
Johnston, Ralph Sherwin, <i>s a w</i>	A.B. (Washburn c.) '08	Topeka, Kan.
Klein, Grover Cleveland, <i>c w sp</i>	S.B. (Austin c.) '06	Small, Ida.
Knapp, Harry Grove, <i>s a w</i>	A.B. (u. of North Dakota)	Lisbon, N.D.
Koch, Edward William, <i>s</i>	A.B. (u. of Indiana) '08; Ph.D. (<i>Ibid.</i>) '09	Chicago
Koerper, Herman William Julius, <i>s a w</i>	S.B. (u. of Chicago) '10	Mendota
Kofmehl, William John, <i>s a w</i>	Senior c.	Elgin
Kromptic, Marion Charles, <i>s</i>	A.B. (Conception c.)	Kansas City, Kan.
Laird, Delbert Harrison, <i>s</i>	S.B. (u. of Chicago) '09	Otterbein, Ind.
Lauerman, Archibald William, <i>a w sp</i>	Senior c.	Detroit, Mich.
Linson, John Henry, <i>s a w</i>	S.B. (u. of Nebraska) '10	Minden, Neb.
Luckhardt, Arno Benedict, <i>s a w</i>	S.B. (u. of Chicago) '06	Chicago
Main, Roscoe Conkling, <i>s</i>	A.B. (u. of Illinois) '06; A.M. (<i>Ibid.</i>) '07	Pittsfield
Marschall, Ernest, <i>a w sp</i>	Practitioner	Chicago
Maxwell, Charles, <i>s a w</i>	S.B. (u. of Chicago) '10	Dakota City, Neb.
McArthur, Selim Walker, <i>a w sp</i>	A.B. (Yale u.) '08	Chicago
McCampbell, Eugene Franklin, <i>a w sp</i>	S.B. (u. of Chicago) '06; Ph.D. (<i>Ibid.</i>) '11	Columbus, O.
McCarey, Arthur James, <i>s a w</i>	S.B. (u. of Chicago) '10	Antigo, Wis.

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
McClellan, John Hancock, <i>s</i>	A.B. (u. of Michigan) '97; Ph.D. (Harvard u.) '06; A.M. (<i>Ibid.</i>) '99	Chicago
Merritt, E. A., <i>a</i>	Practitioner	Chicago
Mills, Roy Fallas, <i>s a w</i>	A.B. (Baker u.) '04	Baldwin, Kan.
Moore, Beveridge Harshaw, <i>a w sp</i>	A.B. (Tarkio c.) '03	Tarkio, Mo.
Moore, Josiah J., <i>s a w sp</i>	S.B. (u. of Montana) '07	Anaconda, Mont.
Myers, Wilson Alexander, <i>s a w</i>	A.B. (Park c.) '08	Kansas City, Mo.
Newman, John Robert, <i>a w sp</i>	S.B. (u. of Wisconsin) '10	Madison, Wis.
Nicholl, Roy Hunter, <i>s</i>	A.B. (Drake u.) '07	Des Moines, Ia.
Nichols, Herbert N. T., <i>s</i>	A.B. (Dartmouth c.) '04	New Orleans, La.
Olds, William Henry, <i>s a w</i>	S.M. (u. of Chicago) '10	Spokane, Wash.
Otten, Harry, <i>s a w</i>	S.B. (u. of Chicago) '10	Pleasant Plains
Orabi, Abdul Hamid, <i>s a</i>	Syrian Protestant c.	Cairo, Egypt
Painter, Jesse Carl, <i>s a w</i>	S.B. (Pennsylvania c.) '07	East Peru, Ia.
Palmer, Charles Edward, <i>s a w</i>	A.B. (Park c.) '08	Worland, Wyo.
Patterson, James, <i>s</i>	S.B. (u. of Chicago) '05	Chicago
Paulsen, Agnes, <i>a</i>	Practitioner	Chicago
Pearce, Fredericka Mary, <i>a</i>	A.B. (Albion c.) '08	Battle Creek, Mich.
Peterson, William Ferdinand, <i>s a w</i>	S.B. (u. of Chicago) '09	Chicago
Phelps, Eugene Talmadge, <i>a w sp</i>	A.B. (u. of Chicago) '08	Hebron, Neb.
Redmon, Andrew Jackson, <i>s</i>	A.B. (u. of Indiana) '01	Peru, Ind.
Rees, Nephi John, <i>a w sp</i>	Brigham Young u.	Wales, Utah
Rees, Thomas David, <i>a w sp</i>	A.B. (u. of Utah) '09	Wales, Utah
Rice, Ethel, <i>a</i>	Practitioner	Chicago
Riley, William Henry, <i>s a w</i>	A.B. (u. of Wisconsin) '09	Altoona, Wis.
Roberts, George F., <i>a w sp</i>	A.B. (u. of Utah) '10	Salt Lake City, Utah
Robison, Nathan H., <i>a w sp</i>	A.B. (u. of Utah) '10	Salt Lake City, Utah
Rosburg, August Henry	A.B. (State u. of Iowa) '09	Hinton
Rowley, Benj. Beresdesmore, <i>a w sp</i>	A.B. (u. of South Dakota) '09	Vermillion, S.D.
Sherry, Israel, <i>s a w</i>	Senior c.	Chicago
Shields, Claude Lester, <i>s a w</i>	A.B. (u. of Utah) '09	Manti, Utah
Smith, Arthur Andrew, <i>s a w</i>	A.B. (u. of Nebraska) '10	Lincoln, Neb.
Smith, Louis Daniel, <i>s</i>	S.B. (u. of Chicago) '09	Monroe, La.
Smith, Robert Lewis Irvine, <i>s a w sp</i>	S.B. (u. of Chicago) '10	Hemet, Cal.
Smith, Wallis William, <i>s a w</i>	S.B. (Drury c.) '08	Marshfield, Mo.
Smith, William Bowman, <i>a w sp</i>	u. of California	Oakland, Cal.
Souter, Charlie Bell, <i>s a w</i>	S.B. (u. of Chicago) '10	Ft. Scott, Kan.
Steagall, John Roscoe, <i>a w sp</i>	S.B. (u. of Wisconsin)	Golconda
Steffen, Lyman Allen, <i>s a w</i>	Senior c.	Antigo, Wis.
Stein, Irving Freiler, <i>s a w</i>	S.B. (u. of Michigan) '10	Chicago

NAME	PREVIOUS INSTITUTION	HOME ADDRESS
Stewart, Clinton George, <i>s a w</i>	A.B. (u. of Michigan) '97	Toledo, O.
Strauss, Jerome Frank, <i>s a w</i>	S.B. (u. of Chicago)	Chicago
Strick, Edward James, <i>s</i>	A.B. (Hope c.) '03	Hutsonville, Mich.
Strobel, William George, <i>a w sp</i>	S.B. (u. of Minnesota) '09	Mankota, Minn.
Sullivan, Ralph C., <i>s a w sp</i>	A.B. (St. Ignatius c.) '05	Chicago
Sutherland, Harry Nicholas, <i>a w sp</i>	S.B. (u. of Wisconsin) '09	Madison, Wis.
Torrance, Fred Emerson, <i>a w sp</i>	S.B. (Southwestern c.) '08	Winfield, Kan.
Ullmann, Henry Johnson, <i>a w sp</i>	Senior c.	Chicago
Wahlberg, Karl William, <i>s a w</i>	A.B. (Augustana c.) '07; S.B. (u. of Chicago) '09	Moline
Watt, Harry Farlin, <i>s a w</i>	Iowa State c.	Ames, Ia.
Wilder, Russell Morse, <i>s a w</i>	S.B. (u. of Chicago) '09	Chicago
Wilson, James Lee, <i>s a w</i>	A.B. (u. of Nebraska) '09	Rushville, Neb.
Wohler, Paul Reinhold, <i>s a w</i>	A.B. (u. of Kansas) '10	Topeka, Kan.
Woods, Edwin Owen, <i>s a w</i>	S.B. (u. of Nashville) '06	Evening Shade, Ark.
Worlton, Fred Daniel, <i>s a w</i>	A.B. (u. of Utah) '10	Lehi, Utah
Wright, Oren Henry, <i>s a w</i>	A.B. (u. of Indiana) '10	Aurora, Ind.
Woodward, Vernie Emma, <i>a w sp</i>	A.B. (u. of Michigan) '10	Shelburne Falls, Mass.
Young, Earle Montgomery, <i>s</i>	A.B. (u. of South Dakota) '08	Vermilion, S.D.

SUMMARY

Freshmen and Sophomores, including special students	. . . 357
Juniors	91
Seniors	139
Post-graduate and special students	50
Total less 26 duplicates	609

